Appendix D1 Biological Technical Report

Memorandum

To: Alison Rondone (PBS&J)

From: Ron Walker (PBS&J)

Date: October 2, 2010

Subject: Field Surveys to Confirm Existing Conditions at Palm/Industrial Distribution Center Project, San Bernardino County, CA

This memorandum presents the results of a biological field survey that was conducted to confirm existing conditions at the Palm/Industrial Project Site (project). The purpose of the biological field survey was to determine if the hydrologic and biological conditions at the project site are the same as when the site was surveyed in 2007. The 2007 survey served as the baseline data for the preparation of the *Palm/Industrial Distribution Center Project Biological Report, October 2007*. The recent biological field survey was conducted by PBS&J staff biologists Ron Walker on September 30, 2010.

Site Location

The approximately 38-acre project site is situated within the USGS 7.5 minute series topographical map for San Bernardino North. The project site is located in the City of San Bernardino, San Bernardino County, CA. The project site is adjacent to Interstate 215 and approximately three miles east of interstate 15. Specifically, the project site is situated on the northeast corner of the intersection of palm Avenue and Industrial Parkway.

Survey Methodology

PBS&J staff biologist Ron Walker conducted the biological field survey nesting migratory birds and raptors on September 30, 2010. The survey covered the project site and a 100-foot buffer outside the project site. The survey consisted of walking the project area with 100% visual coverage, using hand-held binoculars. Photographs were taken at numerous viewpoints documenting the current conditions. The survey began at 1000 and concluded at 1445. Weather conditions during the survey were overcast skies with a slight breeze and the air temperature was 88 degrees Fahrenheit.

Results

As stated previously, the purpose of the recent biological survey was to determine if the current existing conditions at the project site are the same as when biological surveys were conducted in 2007. After walking the project site and comparing existing biological conditions to what is described in the *Palm/Industrial Distribution Center Project Biological Report, October 2007;* it was determined that the existing conditions are the same.

The habitats described in the *Palm/Industrial Distribution Center Project Biological Report, October 2007* exist in the same quantity and quality as observed on September 30, 2010. Because the habitats are the

same, it is expected that the common resident and migratory wildlife that have been observed or expected to occur on the project site will remain the same. There are no new identified habitats, plants, or wildlife species that were not previously observed identified in the recent biological field survey conducted on September 30, 2010.

Ron Walker
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Palm/Industrial Distribution Center Project

Biological Technical Report

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October 2007

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INTRODUCTION

EIP Associates, a Division of PBS&J ("EIP") has prepared this document as an assessment of the biological resources associated with the proposed Palm/Industrial Distribution Center ("proposed project"/"study area"/"property"). The study area is undeveloped and encompasses approximately thirty-eight acres located within the city of San Bernardino, California (see Figure 1 [Regional Location Map]).

The study area is within what is termed a "Biological Resource Management Area" ("BRM") by the city of San Bernardino's General Plan (see Figure 2 [Biological Resource Management Areas]). As such, in accordance with General Plan Policy 12.1.4 (see the *Regulatory Framework – Local* section, below), this Biological Technical Report has been prepared to:

- list the results of a detailed literature search,
- describe the findings of on-site biological surveys,
- explain the biological resources that occur throughout the study area,
- identify potential project impacts to biological resources,
- assess the need for additional focused surveys for federally and/or state threatened or endangered species, and
- recommend potential mitigation measures to avoid or reduce potential impacts to biological resources to a less-than-significant level, where feasible.

This technical information is provided for project review under the California Environmental Quality Act ("CEQA"), state of California and Federal Endangered Species Acts, and other pertinent regulations. Recommended mitigation should be incorporated into the proposed project's Environmental Impact Report ("EIR"), and included in the Mitigation Monitoring and Reporting Program ("MMRP") associated with the EIR.

ENVIRONMENTAL SETTING

Regional Setting

The study area is contained within the United States Geological Survey ("USGS") 7.5-minute series topographical map for San Bernardino North. The study area is located in the City of San Bernardino ("City"), San Bernardino County ("County"), California ("State").

The approximately thirty-eight acre study area is located adjacent (south) of Interstate 215 ("I-215"), and approximately three miles east of Interstate 15 ("I-15"). Specifically, the study area is situated on the northeast corner of the intersection of Palm Avenue and Industrial Parkway.

Site Characteristics and Adjacent Land Uses

The study area is currently vacant. The study area has two defining hill features within its boundaries that occupy approximately 35% of the property. The study area supports the California sagebrush-California buckwheat series vegetation community. The flat terrain of the study area is located between 1,640 and 1,680 feet above sea level ("ASL"), with the larger of the two hill features reaching 1,805 feet ASL. The majority of the flat terrain has been disced, with California sagebrush-California buckwheat series vegetation communities on the northern and eastern portion of the study area. An ephemeral wash enters the study area from under I-215, at the northwest corner of the property, and travels in a southeasterly direction (through the center of the study area), eventually dissipating at the western base of the larger of the two hill features.

The study area is bordered by I-215 to the north, Palm Avenue to the west, Industrial Parkway to the south, and undeveloped property to the east. The study area and adjacent areas to the south and east are zoned "Industrial". To the north is I-215, and the area to the west is zoned "Commercial".

METHODOLOGY

Literature Survey

Information on occurrences of special-status species in the vicinity of the study area was obtained from searching databases and lists of California Department of Fish and Game's ("CDFG") California Natural Diversity Database (CNDDB; July 2007) for the USGS 7.5-minute San Bernardino North, San Bernardino South, Lake Arrowhead, Silverwood Lake, Devore, Fontana, Butler Peak, Harrison Mountain, and Redlands quadrangles. Information on the status of special-status plant and wildlife species potentially occurring within the study area was also obtained from the CDFG's Special Vascular Plants, Bryophytes, and Lichens List (January 2007), the CDFG's List of State and Federally Listed Endangered and Threatened Animals of California (January 2007), and the CDFG's list of Special Animals (January 2007). This search range encompasses a sufficient distance to accommodate for regional habitat diversity and to overcome the limitations of the CNDDB. The CNDDB is based on reports of actual occurrences and does not constitute an exhaustive inventory of every resource.

Additionally, background information on biological resources was derived from the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland, 1986), A Manual of California Vegetation (J.O Sawyer and T. Keeler-Wolf, 1995), the Jepson Manual of Higher Plants of California (J.C. Hickman, Ed. 1993), and Trees and Shrubs of California (J.D. Stuart and J.O Sawyer, Ed. 2001). Blooming periods were taken from the California Native Plant Society ("CNPS") Electronic Inventory ("CNPSEI") of Rare and Endangered Vascular Plants of California. Based upon the results of the literature review and record searches, a list of special-status plant and animal species and habitats with the potential to occur within the study area was developed for verification in the field (see Appendix A – Sensitive Species Wildlife & Plant Species Potentially Occurring within the Study Area).

Sources: Microsoft Trips and Streets, basemap, 2006; EIP Associates, a Division of PBS&J, 2007.

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FIGURE **1**

Regional Location Map

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Palm/Industrial Distribution Center

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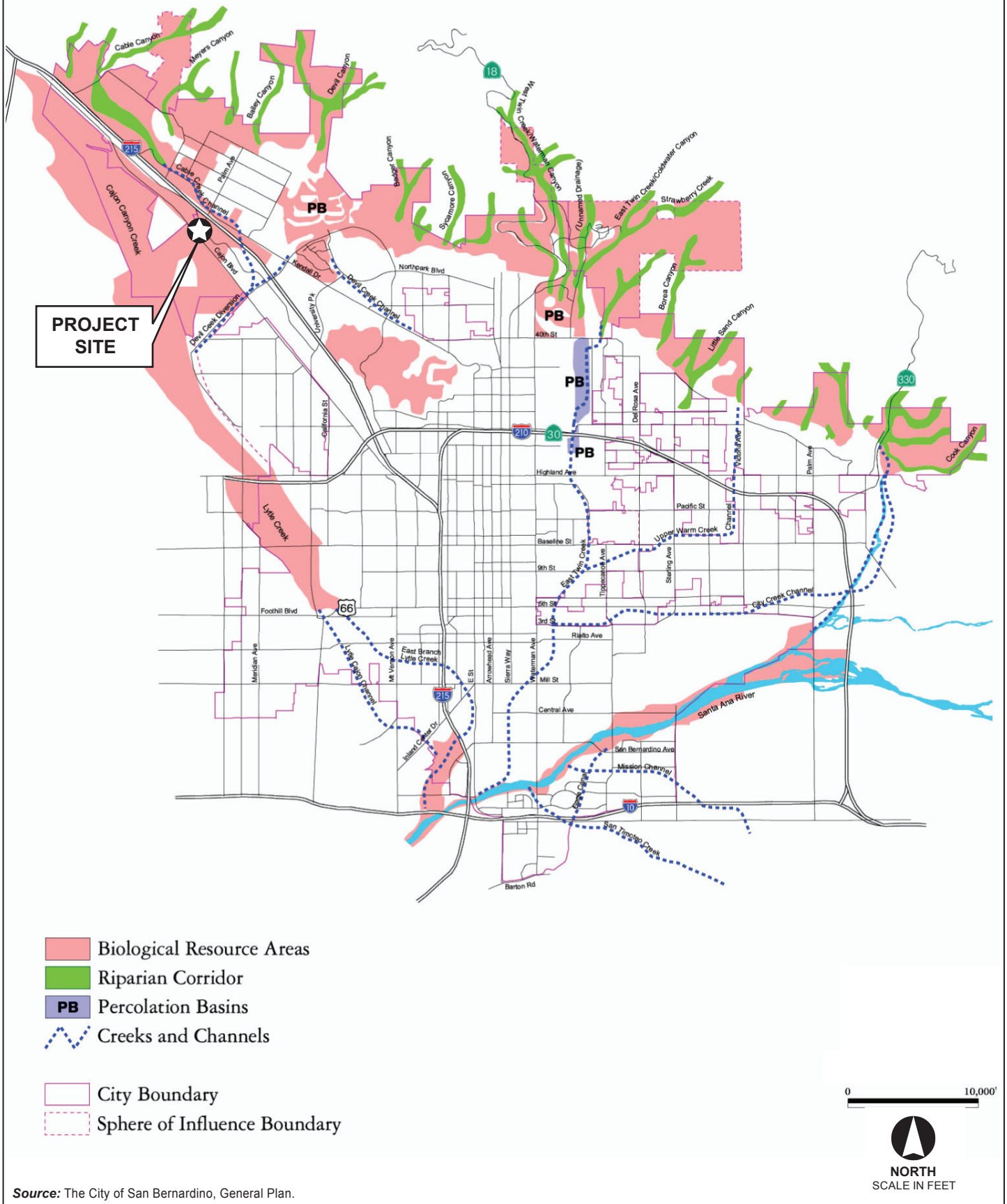

Source: The City of San Bernardino, General Plan.

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FIGURE **2**

Biological Resource Management Areas

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Palm/Industrial Distribution Center

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Field Survey

Plant Survey

A botanical survey was performed on August 2, 2007. This survey included an assessment of vegetation types and plant communities occurring within the study area, as well as a search for wetland indicator plant species and an assessment of habitat that could potentially support special status species. Plant species were identified in the field or collected for future identification. Plants were identified using keys in Hickman (1993) and Stuart and Sawyer (2001) for scientific and common names. Plant species observed within the study area are listed in Appendix B (Plant and Animal Species Observed within the Study Area).

Wildlife Survey

A wildlife survey was performed on August 2, 2007, from 8:30 A.M. to 2:00 P.M. This survey covered the morning active period, when opportunities for detecting wildlife species are greatest. The survey included active searches for reptiles, which involved lifting, overturning, and carefully replacing rocks and debris and observing reptile activity on dirt areas. Birds were identified by standard visual and auditory recognition, and the presence of nests or other evidence of breeding activity was noted. Surveying for mammals included searching for and identifying diagnostic sign, including scat, footprints, scratch-outs, dusting bowls, burrows, and trails. Wildlife species observed within the study area are listed in Appendix B.

Focused Surveys: Coastal California Gnatcatcher and San Bernardino Kangaroo Rat

The study area is within what is termed "Coastal California Gnatcatcher Critical Habitat" and "San Bernardino Kangaroo Rat Critical Habitat" by the City's General Plan (see Figure 3 [Critical Habitat]). The coastal California gnatcatcher (*Polioptila californica californica*) and San Bernardino kangaroo rat **(***Dipodomys stephensi*) are listed as threatened and endangered, respectively, by the United States Fish and Wildlife Service ("USFWS"). For a more detailed description of these species see the *Sensitive Biological Resources—Federally and State Listed Species—Wildlife* section, below.

As described in the *On-site Biological Resources—Vegetation Communities* section, below, the study area supports coastal sage scrub (California sagebrush-California buckwheat series) vegetative community, which is the preferred habitat of coastal California gnatcatcher and San Bernardino kangaroo rat. As such, focused surveys are currently underway to determine the presence/absence of these species.

ON-SITE BIOLOGICAL RESOURCES

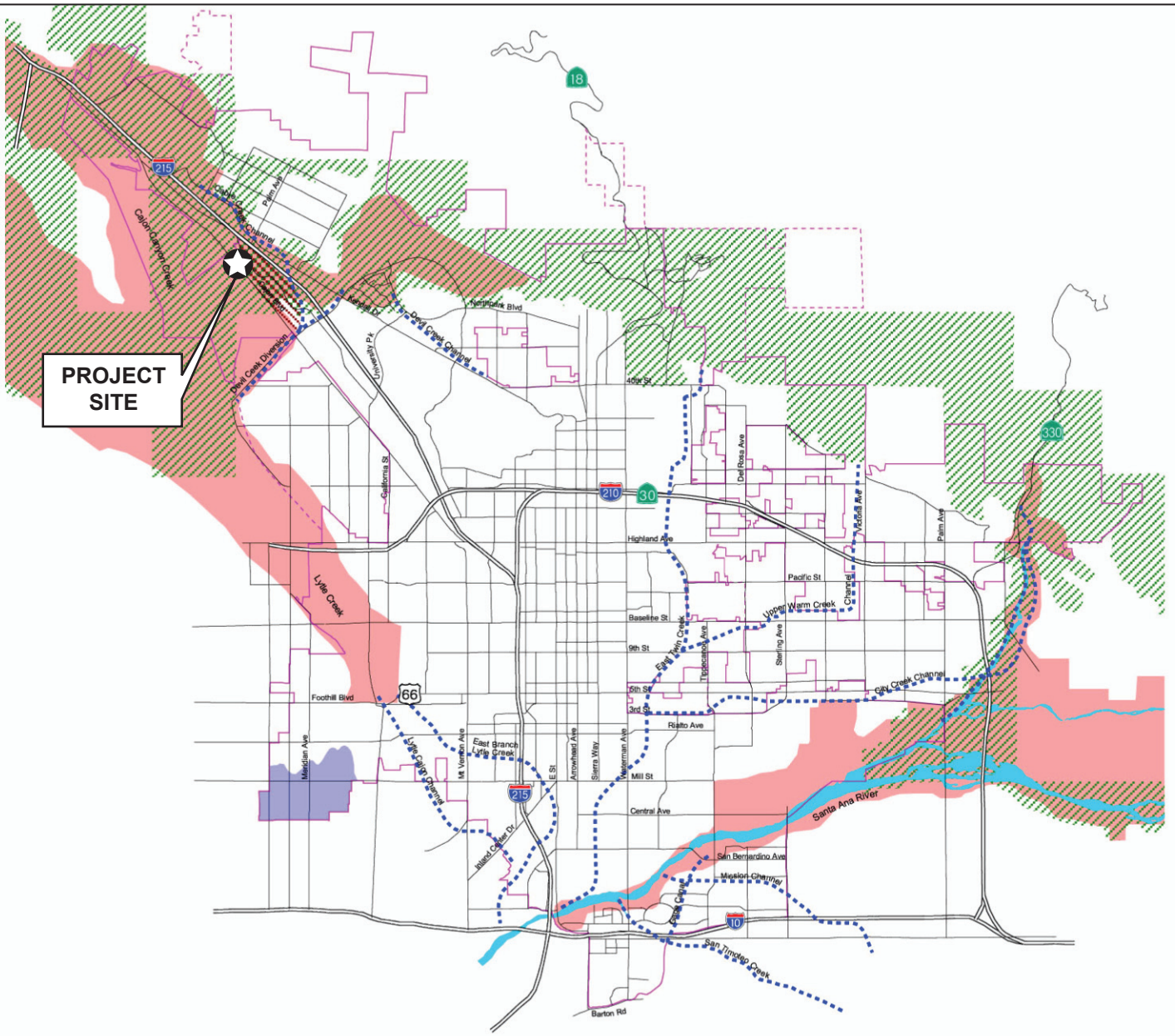
Vegetation Communities

A total of forty-seven plant species were observed within the study area, and are listed in Appendix B. Vegetation within the approximately thirty-eight acre study area is mostly limited to those species associated with the coastal sage scrub vegetative community, as much of the study area has been diced or disturbed (ruderal). A couple of western sycamore (*Platanus racemosa*) and Southern California black walnut (*Juglans californica* var. *californica*) trees were observed within the study area. While such trees are normally associated with riparian type vegetative communities, these trees were isolated incidences of riparian vegetation, and are linked to the ephemeral wash that travels through the middle of the study area in a southeasterly direction. A description of the vegetation communities located within the study area is provided below. These vegetation communities are delineated in Figure 4 (Vegetation Communities).

California Sagebrush-California Buckwheat Series (i.e. Coastal Sage Scrub) (20.91 acres)

This vegetation community was the dominant vegetative cover found on hillslopes and hilltops throughout the study area (see Photo 1). California sagebrush (*Artemisia californica*) and California buckwheat (*Eriogonum fasciculatum*) were the dominant soft-woody sub-shrubs observed in terms of their overall frequency, density, and distribution throughout the various coastal sage scrub areas. Less frequently encountered sub-dominant shrub species included chamise (*Adenostoma fasciculatum*), black sage (*Salvia mellifera*), white sage (*Salvia apiana*), scrub oak (*Quercus berberidifolia*), holly-leaved cherry (*Prunus ilicifolia* ssp.*ilicifolia*), holly-leaved redberry (*Rhamnus ilicifolia*), yerba santa (*Eriodictyon* sp.), skunkbush (*Rhus trilobata*), interior goldenbush (*Ericameria linearifolia*), wedgeleaf ceanothus (*Ceanothus cuneatus*), and saw-toothed goldenbush (*Hazardia squarrosa* var. *grindelioides*). Southern California black walnut, blue elderberry (*Sambucus mexicana*), and poison oak (*Toxicodendron diversilobum*) were infrequent, and restricted to north-facing slopes throughout the coastal sage scrub areas. A colony of chaparral yucca (*Yucca whipplei*) was observed growing on a south-facing rocky outcropping near Industrial Avenue.

Due to the presence of exposed bedrock and shallow soils in many areas, a herbaceous understory was largely absent. Native herbaceous vascular plant species observed included giant rye (*Leymus condensatus*), California croton (*Croton californicus*), deerweed (*Lotus scoparius*), Bailey's buckwheat (*Eriogonum baileyi*), and Brewer's fleabane (*Erigeron breweri*); non-native herbaceous vascular plant species observed included black mustard (*Brassica nigra*), white horehound (*Marrubium vulgare*), tocalote (*Centaurea melitensis*), and yellow star-thistle (*Centaurea solstitialis*).



San Bernardino Kangaroo Rat Critical Habitat

Coastal California Gnatcatcher Critical Habitat

Cajon Conservation Bank (Cal Mat)

Delhi Sands Flower-loving Fly Colton Recovery Unit

Creeks and Channels

City Boundary

Sphere of Influence Boundary

0 10,000'

NORTH

SCALE IN FEET

Source: The City of San Bernardino, General Plan.

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FIGURE **3**

Critical Habitat

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Palm/Industrial Distribution Center

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FIGURE **4**

Vegetation Communities

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Palm Ave. Distribution Center EIR

Photo 1: *Coastal Sage Scrub Vegetation Community; taken facing south, at the north base of the larger of the two hill features located within the study area.*

Disced (13.79 acres)

Disced areas (see Photo 2) at the study area were devoid of vegetative cover at the time of the August 2, 2007 field survey.

Photo 2: *Disced; taken facing northwest, at the southeast corner of the study area.*

Ruderal (3.15 acres)

Ruderal (i.e., disturbed) plant communities (see Photo 3) are typically dominated (although not exclusively) by non-native, short-lived annual and biennial plant species that are adapted to periodic disturbance regimes (e.g., discing, mowing, spraying). This vegetation community type was found primarily along the edges of recently graded or disced areas. Plant species observed included black mustard, white horehound, tocalote, California croton, fiddleneck, rip-gut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), Jimson weed (*Datura stramonium*), Russian thistle (*Salsola tragus*), filaree (*Erodium* sp.), telegraph weed (*Heterotheca grandiflora*), and annual sunflower (*Helianthus annuus*).

Photo 3: *Ruderal; taken facing south, at the north base of the larger of the two hill features located within the study area.*

Ephemeral Wash (0.51 acre)

An ephemeral wash (see Photo 4) enters the study area at the northwest corner of the property, and travels in a southeasterly direction (through the center of the study area), eventually dissipating at the western base of the larger of the two hill features located within the property. A small portion of the ephemeral wash also branches out in an easterly direction along the northern boundary of the study area, dissipating well before the eastern boundary of the property. These features are isolated, and exhibit no connectivity to any other drainageway outside of the study area. The ephemeral wash located within the study area intercepts discharges from along I-215 and its on-/off-ramps (located adjacent to the study area), and Palm Avenue, during heavy precipitation events. Due to a high percentage of sand and gravel alluvium throughout the soil profile, soils drain quickly, and do not support a prevalence of hydrophytic (i.e., water-loving) plant species. Many of the same plant species found within the California sagebrush-

California buckwheat series were also dominant throughout the scoured bed of the wash including: California buckwheat, California sagebrush, California croton, deerweed, rip-gut brome, and black mustard.

Photo 4: *Ephemeral Wash; taken facing northwest, at the central portion of the study area.*

Wildlife

A total of nineteen wildlife species were recorded within the study area by direct observation, detection of vocalizations, or observation of sign. These species are listed in Appendix B, and include: twelve avian, three reptile, and four mammal species. Wildlife and wildlife signs (including tracks, scat, carcasses, burrows, nests, excavations, vocalizations, and observations) were noted and recorded on standardized data sheets.

Wildlife Movement

Wildlife corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. Fragmentation can also occur when a portion of one or more habitats is converted into another habitat, such as when woodland or scrub habitat is altered or converted into grasslands after a disturbance such as fire, mudslide, or grading activities. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, would not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information. Wildlife corridors mitigate the effects of this fragmentation by: (1)

allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) on population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas, or individuals extending range distributions); (2) seasonal migration; and (3) local movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover). A number of terms have been used in various wildlife movement studies, such as "wildlife corridor," "travel route," "habitat linkage," and "wildlife crossing," to refer to areas in which wildlife move from one area to another. To clarify the meaning of these terms and facilitate the discussion of wildlife movement in this analysis, these terms are defined as follows:

- *Travel route*—A landscape feature (such as a ridgeline, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another. It contains adequate food, water, and/or cover while moving between habitat areas and provides a relatively direct link between target habitat areas.
- *Wildlife corridor*—A piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as "habitat or landscape linkages") can provide both transitory and resident habitat for a variety of species.
- *Wildlife crossing*—A small, narrow area, relatively short in length and generally constricted in nature, that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement. Crossings typically are manmade and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These often represent "choke points" along a movement corridor.

Within a large open space area in which there are few or no manmade or naturally occurring physical constraints to wildlife movement, wildlife corridors, as defined above, may not yet exist. Given an open space area that is both large enough to maintain viable populations of species and provide a variety of travel routes (canyons, ridgelines, trails, riverbeds, and others), wildlife would use these "local" routes while searching for food, water, shelter, and mates, and would not need to cross into other large open space areas. Based on their size, location, vegetative composition, and availability of food, some of these movement areas (e.g., large drainages and canyons) are used for longer lengths of time and serve as source areas for food, water, and cover, particularly for small- and medium-size animals. This is especially true if the travel route is within a larger open space area. However, once open space areas become constrained and/or fragmented as a result of urban development or construction of physical obstacles, such as roads and highways, the remaining landscape features or travel routes that connect the larger open space areas can "become" corridors as long as they provide adequate space, cover, food, and water,

and do not contain obstacles or distractions (e.g., manmade noise, lighting) that could hinder wildlife movement.

SENSITIVE BIOLOGICAL RESOURCES

The following section addresses special-status biological resources observed, reported, or having the potential to occur within the study area. These resources include plant and wildlife species that have been afforded special status and/or recognition by federal and State resource agencies, as well as private conservation organizations and special interest groups such as the CNPS (List 1A, 1B, and 2). In general, the principal reason an individual taxon (species, subspecies, or variety) is given such recognition is the documented or perceived decline or limitation of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss. Appendix A lists special-status plants and animals known to occur within the region of the study area, along with their federal and State listing and potential for occurrence within the study area. In addition, special-status biological resources include vegetation types and habitats that are unique, of relatively limited distribution in the region, or of particularly high wildlife value. These resources have been defined by federal, State, and local government conservation programs. Sources used to determine the special-status of biological resources are listed in the "Methodology – Literature Survey" section of this document.

The potential to occur within the study area was based on the following criteria:

- *Absent*: Species was not observed during focused surveys conducted at an appropriate time for identification of the species, or species is restricted to habitats that do not occur within the study area.
- *Low*: No records exist of the species occurring within the study area or its vicinity, or habitats needed to support the species are of poor quality.
- *Moderate*: A historical record exists of the species within the vicinity of the study area (approximately 5 miles—see Figure 5 [Sensitive Species Occurrences]) and/or the habitat requirements associated with the species occur within the study area.
- *High*: Both a historical record exists of the species within the study area or its immediate vicinity (approximately one mile) and the habitat requirements associated with the species occur within the study area.
- *Species Observed*: The species was observed within the study area at the time of the survey.

Federally and State-Listed Species

No threatened or endangered species were observed within the study area during the biological field surveys of the entire property; however, these surveys were not intended to determine the presence/absence of threatened or endangered species. Rather, the surveys were intended to assess the potential for these species to occur based on habitat suitability. Focused surveys to determine presence/absence would be at the discretion of the appropriate federal or State resource agencies. Based on the literature review, twenty-five State and/or federally listed threatened or endangered species were identified as potentially occurring within the study area, or reported by the CNDDB as occurring within

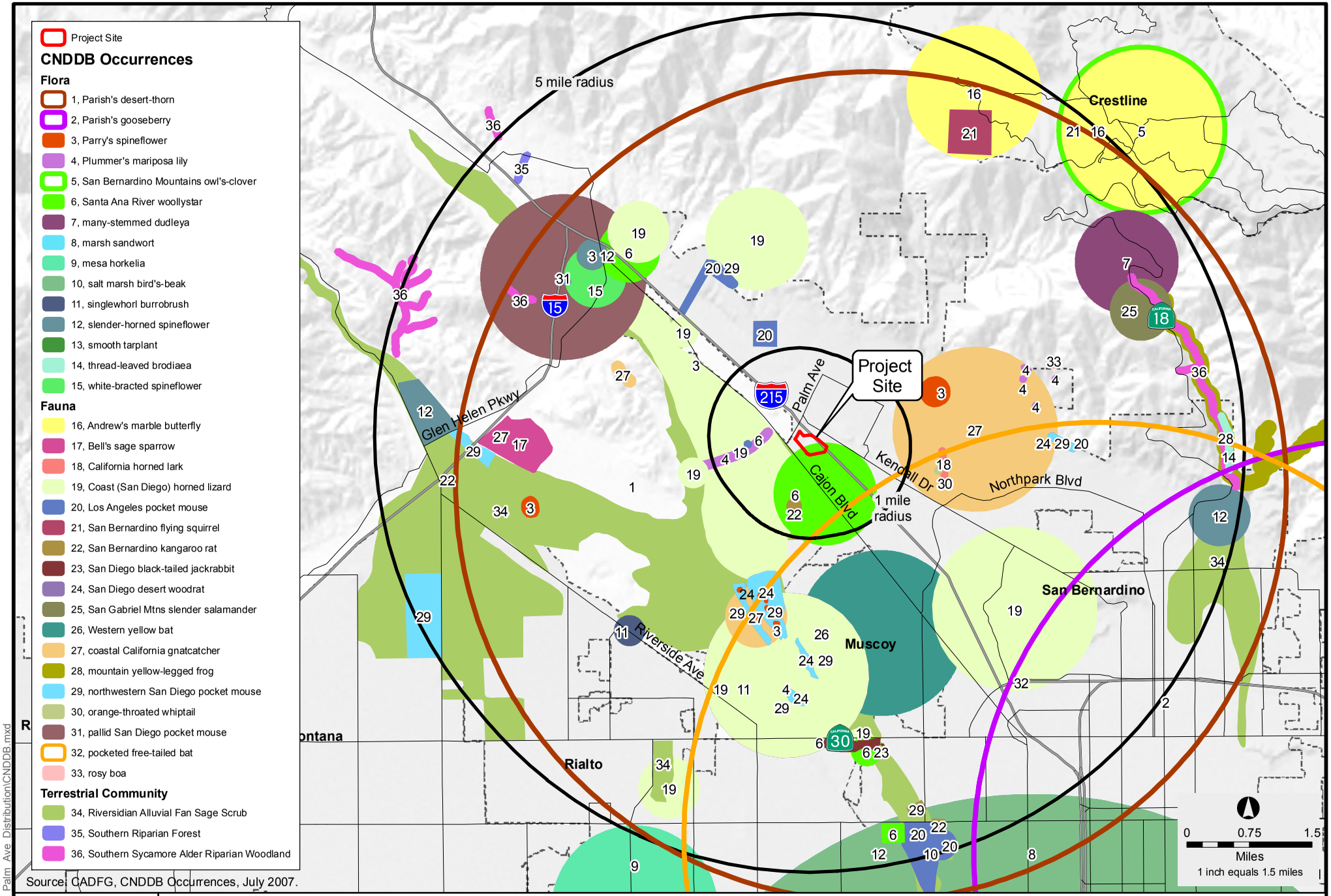
the USGS 7.5-minute quadrangle map for the San Bernardino North, and the eight surrounding quadrangles (see Appendix A). As discussed below, two species are considered to have a *moderate* or greater potential of occurrence within the study area. Each of the federally and/or State listed species, and its probability of occurrence, is described in more detail in the species accounts that follow.

Wildlife

Arroyo Toad (*Bufo californicus*). The arroyo toad is listed as endangered by the USFWS. The arroyo toad is primarily nocturnal and prefers sandy, stable terraces along stream banks, with scattered shrubs and trees, such as mulefat and willow. When breeding, they prefer open pools with gravel or sandy bottoms found near large streams. Exposed pools that have little marginal woody vegetation and are shallow with a sand or gravel substrate and a low current velocity are strongly favored. The study area does not provide suitable habitat for the arroyo toad. In addition, the arroyo toad has not been observed within a 5-mile radius of the study area. The arroyo toad is ***absent*** from the study area.

California Red-legged Frog (*Rana aurora draytonii*). The California red-legged frog is listed as threatened by the USFWS. The California red-legged frog is usually found near sheltered ponds or other permanent water with extensive vegetation, and also seen during rains traveling over land between ponds or other waters. Historically found throughout the Central Valley and Sierra Nevada foothills, south to northern Baja California, the California red-legged frog is now found from Sonoma and Butte Counties south, to Riverside, but mainly in Monterey, San Luis Obispo, and Santa Barbara Counties. The study area does not provide suitable habitat for the California red legged frog. In addition, the California red-legged frog has not been observed within a 5-mile radius of the study area. The California red-legged frog is ***absent*** from the study area.

Mountain Yellow-legged Frog (*Rana muscosa*). The mountain yellow-legged frog is listed as endangered by the USFWS. Mountain yellow-legged frogs are diurnal, highly aquatic frogs, occupying rocky and shaded streams with cool waters originating from springs and snowmelt. The mountain yellow-legged frog feeds on small, streamside arthropods. The mountain yellow-legged frog does not occur in the smallest creeks. The coldest winter months are spent in hibernation, probably under water or in crevices in the bank. Mountain yellow-legged frogs can be found in the San Gabriel Mountains, in the upper reaches of Prairie Creek/Vincent Gulch, Devil's Canyon, and Alder Creek/East Fork, on the East Fork of the San Gabriel River, and Little Rock Creek on the Mojave River, in City Creek in the San Bernardino Mountains and in Dark Canyon in the San Jacinto Mountains. The study area does not provide suitable habitat for the mountain yellow-legged frog. In addition, the mountain yellow-legged frog has not been observed within a 5-mile radius of the study area. The mountain yellow-legged frog is ***absent*** from the study area.



Source: CADFG, CNDDB Occurrences, July 2007.

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FIGURE **5**

Sensitive Species Occurrences

D21331.01

Palm Ave. Distribution Center EIR

Western Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*). The western yellow-billed cuckoo is listed as a candidate by the USFWS, and is listed as endangered by the CDFG. In California, the western yellow-billed cuckoo requires dense, wide riparian woodlands, with well-developed understories for breeding. It occurs in densely foliaged, deciduous trees and shrubs, especially willows that are required for roost sites. It is restricted when breeding to river bottoms and other mesic habitats where humidity is high and where the dense understory abuts slow-moving watercourses, backwaters, or seeps. Willow is almost always a dominant component of the vegetation. The study area does not provide suitable habitat for the western yellow-billed cuckoo. In addition, the western yellow-billed cuckoo has not been observed within a 5-mile radius of the study area. The western yellow-billed cuckoo is ***absent*** from the study area.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*). The southwestern willow flycatcher was recently delisted as by the USFWS; however, it remains listed as endangered by the CDFG. The southwestern willow flycatcher is a late spring and summer breeding resident and migrates south for fall and winter. It inhabits riparian woodlands and thickets, associated with the presence of surface water and/or very moist soil conditions and understory vegetation. The study area does not provide suitable habitat for the southwestern willow flycatcher. In addition, the southwestern willow flycatcher has not been observed within a 5-mile radius of the study area. The southwestern willow flycatcher is ***absent*** from the study area.

Bald Eagle (*Haliaeetus leucocephalus*). The bald eagle is listed as threatened by the USFWS, and is listed as endangered by the CDFG. The bald eagle requires old-growth and mature stands of coniferous or hardwood trees for perching, roosting, and nesting within 1 mile of water, where it may also spend winters along ocean shore, lake margins, and rivers.. The bald eagle is extremely sensitive to human activity, and occurs most commonly in areas free of human disturbance. It can be a migratory bird but it also is not unheard of for a nesting pair to overwinter in its breeding area. The study area does not provide suitable habitat for the bald eagle. In addition, the bald eagle has not been observed within a 5-mile radius of the study area. The bald eagle is ***absent*** from the study area.

Coastal California Gnatcatcher (*Polioptila californica californica*). The coastal California gnatcatcher is listed as threatened by the USFWS. The coastal California gnatcatcher is an obligate resident of southern California coastal sage scrub communities near arid hillsides, mesas, and washes. The coastal California gnatcatcher will generally avoids steep slopes and dense vegetation for nesting. The study area does provide suitable habitat for the coastal California gnatcatcher. In addition, the coastal California gnatcatcher has been observed within a 1-mile radius of the study area. The coastal California gnatcatcher has a ***high*** potential of occurring within the study area.

Least Bell's Vireo (*Vireo bellii pusillus*). The least Bell's vireo is listed as endangered by the USFWS, and is listed as endangered by the CDFG. The least Bell's vireo is a summer resident of cottonwood-willow forest, oak woodland, shrubby thickets, and dry washes. Although they have been documented in a variety of habitats, they are found almost exclusively in riparian woodlands. Currently, its breeding range is limited to southern California, with large populations in Riverside and San Diego counties and

smaller populations in Santa Barbara, Ventura, and San Diego counties and in northern Baja California. The least Bell's vireo is also very sensitive to human-generated disturbance from sources such as noise from off-road vehicle use or continued human presence and nighttime lighting. The study area does not provide suitable habitat for the least Bell's vireo. In addition, the least Bell's vireo has not been observed within a 5-mile radius of the study area. The least Bell's vireo is ***absent*** from the study area.

Santa Ana sucker (*Catostomus santaanae*). The Santa Ana sucker is listed as threatened by the USFWS. The Santa Ana Sucker is found in permanent streams, in water ranging in depth from a few centimeters to a meter or more. Preferred substrates are generally coarse, and consist of gravel, rubble, and boulders, with growths of filamentous algae, but occasionally they are found on sand/mud substrates. The Santa Ana Sucker appears to be most abundant where the water is cool, clean, and clear, although the species can tolerate seasonally turbid water. The Santa Ana sucker is intolerant of polluted or highly modified streams; consequently, the water quality must be maintained to provide breeding locations for this species. The study area does not provide suitable habitat for the Santa Ana sucker. In addition, the Santa Ana sucker has not been observed within a 5-mile radius of the study area. The Santa Ana sucker is ***absent*** from the study area.

Delhi Sands Flower-loving Fly (*Rhaphiomidas terminatus abdominalis*). The Deli sands flower-loving fly is listed as endangered by the USFWS. The Delhi sands flower-loving fly is found only in areas of the Delhi sands soil formation in southwestern San Bernardino and northwestern Riverside counties. The Deli sands flower-loving fly requires fine, sandy soils, often with wholly or partly consolidated dunes and sparse vegetation. The study area does not provide suitable habitat for the Delhi sands flower-loving fly. In addition, the Delhi sands flower-loving fly has not been observed within a 5-mile radius of the study area. The Delhi sands flower-loving fly is ***absent*** from the study area.

San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*). The San Bernardino kangaroo rat is listed as endangered by the USFWS. The San Bernardino kangaroo rat prefers alluvial scrub/coastal sage scrub habitats, on gravelly and sandy soils adjoining river and stream terraces, and on alluvial fans. The San Bernardino kangaroo rat primarily feeds on seeds, often storing large quantities of food for future use. Green vegetation and insects are also important seasonal food sources. The San Bernardino kangaroo rat is also known for its ability to live indefinitely without water, on a diet consisting mainly of dry seeds. The study area does provide suitable habitat for the San Bernardino kangaroo rat, though not ideal. In addition, the San Bernardino kangaroo rat has been observed within a 1-mile radius of the study area. The San Bernardino kangaroo rat has a ***high*** potential of occurring within the study area.

Stephens' Kangaroo Rat (*Dipodomys stephensi*). The Stephens' kangaroo rat is listed as endangered by the USFWS, and is listed as threatened by the CDFG. The Stephens' kangaroo rat occurs at elevations below 610m, in flat or gently rolling, often degraded, annual grassland. The Stephens' kangaroo rat eats seeds and is nocturnal. Trapping showed that it is associated with locations where grass cover and bare ground are abundant but where bush and rock are uncommon. The study area provides habitat unlikely to be inhabitated by the Stephens' kangaroo rat. In addition, the Stephens' kangaroo rat has not been observed within a 5-mile radius of the study area. The Stephens' kangaroo rat has a ***low*** potential of occurring within the study area.

Southern Rubber Boa (*Charina umbratica*). The southern rubber boa is listed as threatened by the CDFG. Southern rubber boas are fossorial, or at least semi-fossorial. They are also nocturnal/crepuscular, and therefore are usually not active during the day, and prefer to hide underground or under pieces surface cover than bask in the open. Southern rubber boas can be found in San Bernardino, in a variety of montane forest habitats, in vicinity of streams or wet meadows. The southern rubber boa requires loose, moist soil for burrowing. The study area does not provide suitable habitat for the southern rubber boa. In addition, the southern rubber boa has not been observed within a 5-mile radius of the study area. The southern rubber boa is ***absent*** from the study area.

Plants

Marsh Sandwort (*Arenaria paludicola*). The marsh sandwort is listed as endangered by the USFWS, and is listed as threatened by the CDFG. Marsh sandwort is a perennial herb in the pink family. It has rooting, trailing stems, and small white flowers which bloom from May to August. Historically, the marsh sandwort has occurred in swamps, freshwater marshes, and other wet areas, between 10–170m. The study area does not provide suitable habitat for the marsh sandwort. In addition, the marsh sandwort has not been observed within a 5-mile radius of the study area. The marsh sandwort is ***absent*** from the study area.

Nevin's Barberry (*Berberis nevinii*). The Nevin's barberry is listed as endangered by the USFWS, and is listed as endangered by the CDFG. The Nevin's barberry blooms from March to June and occurs in sandy or gravelly chaparral, cismontane woodland, coastal scrub, and riparian scrub. The Nevin's barberry native range currently extends from the foothills of the San Gabriel Mountains of Los Angeles county to near the foothills of the Peninsular Ranges of southwestern Riverside County, between 290-1575m. Although the coastal sage scrub habitat at the study area may provide potentially suitable habitat, this highly visible (1 to 4 meters tall) species would have been observed during the August 2, 2007 field survey. In addition, the Nevin's barberry has not been observed within a 5-mile radius of the study area. The Nevin's barberry is ***absent*** from the study area.

Thread-leaved Brodiaea (*Brodiaea filifolia*). The thread-leaved brodiaea is listed as endangered by the USFWS, and is listed as endangered by the CDFG. The thread-leaved brodiaea typically occurs on gentle hillsides, valleys, and floodplains in semi-alkaline mudflats, vernal pools, mesic southern needlegrass grassland, mixed native-nonnative grassland, and alkali grassland plant communities in association with clay, loamy sand, or alkaline silty-clay soils, blooming March to June. The thread-leaved brodiaea has been observed within a 5-mile radius of the study area; however, the study area does not provide suitable habitat for the thread-leaved brodiaea. The thread-leaved brodiaea is ***absent*** from the study area.

Salt Marsh Bird's Beak (*Cordylanthus maritimus* ssp. *maritimus*). The salt marsh bird's beak is listed as endangered by the USFWS, and is listed as endangered by the CDFG. The salt marsh bird's beak occurs in coastal dunes, coastal salt marshes, and swamps along coastal California south, to Baja. The salt marsh bird's beak blooms from May to October, and can be found at elevations of 0-30m. The salt

marsh bird's beak has been observed within a 5-mile radius of the study area; however, the study area does not provide suitable habitat for the salt marsh bird's beak. The salt marsh bird's beak is ***absent*** from the study area.

Mojave Tarplant (*Deinandra mohavensis*). The Mojave tarplant boa is listed as endangered by the CDFG. The Mojave tarplant occurs on low sand bars in river beds, along stream channels or in ephemeral grassy areas in riparian scrub and chaparral, at elevations of 850-1600m, blooming July to October. The Mojave tarplant is believed to be extirpated in San Bernardino county. The study area does not provide suitable habitat for the Mojave tarplant. In addition, the Mojave tarplant has not been observed within a 5-mile radius of the study area. The Mojave tarplant is ***absent*** from the study area.

Slender-horned Spineflower (*Dodecahema leptoceras*). The slender-horned spineflower is known to occur in alluvial fans, floodplains, stream terraces, washes and associated benches, at elevations of 200-760m. The slender-horned spineflower grows in riverbed alluvium high in silt and low in nutrients and organic matter; in silt-filled, shallow depressions on relatively flat surfaces surrounded by scattered, river-rounded, cobble-sized rocks. These sediments are on stable surfaces, usually older than 100 years. The slender-horned spineflower is generally found in open areas among alluvial fan scrub, often associated with other spineflower species, and in low density of exotic grasses and other introduced weedy species. The slender-horned spineflower has been observed within a 5-mile radius of the study area; however, the study area does not provide suitable habitat for the slender-horned spineflower. The slender-horned spineflower is ***absent*** from the study area.

Santa Ana River Woollystar (*Eriastrum densifolium ssp. sanctorum*). The Santa Ana river woollystar is listed as endangered by the USFWS, and is listed as endangered by the CDFG. Blooming June to September, the Santa Ana river woollystar is found only within open washes and early-successional alluvial fan scrub, on open slopes above main watercourses on fluvial deposits where flooding and scouring occur at a frequency that allows the persistence of open shrublands. Suitable habitat is comprised of a patchy distribution of gravelly soils, sandy soils, rock mounds, and boulder fields, at elevations of 150–610m. Blooming June to September. The Santa Ana river woollystar has been observed within a 1-mile radius of the study area; however, the study area does not provide suitable habitat for the Santa Ana river woollystar. The Santa Ana river woollystar is ***absent*** from the study area.

Parish's Daisy (*Erigeron parishii*). The Parish's daisy is listed as threatened by the USFWS. Blooming May to June, the Parish's daisy is endemic to southern California, and is restricted to the dry calcareous (primarily limestone) slopes of the San Bernardino Mountains, with a few collections from generally granitic areas at the east end of the San Bernardino Mountains and in the Little San Bernardino Mountains at elevations of 1090–2000m. The Parish's daisy appears to be most commonly found either along washes on the canyon bottoms or on loose alluvial deposits on adjacent benches. The study area does not provide suitable habitat for the Parish's daisy. In addition, the Parish's daisy has not been observed within a 5-mile radius of the study area. The Parish's daisy is ***absent*** from the study area.

Southern Mountain Buckwheat (*Eriogonum kennedyi var. austromontanum*). The southern mountain buckwheat is listed as threatened by the USFWS. The southern mountain buckwheat is found

in pebble (pavement) plain and lower montane coniferous forest, at elevations of 1755–2375m. Blooming July to September, the southern mountain buckwheat is rare, but occasionally locally common and known only in the Bear Valley area of the San Bernardino Mountains. The study area does not provide suitable habitat for the southern mountain buckwheat. In addition, the southern mountain buckwheat has not been observed within a 5-mile radius of the study area. The southern mountain buckwheat is ***absent*** from the study area.

Cushenbury Buckwheat (*Eriogonum ovalifolium* var. *vineum*). The Cushenbury buckwheat is listed as endangered by the USFWS. Blooming May to August, the Cushenbury buckwheat is a low, densely-matted perennial herb endemic to carbonate deposits on the north side (desert side) of the San Bernardino Mountains (Transverse Ranges) of San Bernardino county, between 1,400–2,400 m in elevation. The study area does not provide suitable habitat for the Cushenbury buckwheat. In addition, the Cushenbury buckwheat has not been observed within a 5-mile radius of the study area. The Cushenbury buckwheat is ***absent*** from the study area.

Gambel's Watercress (*Nasturtium gambelii*). The Gambel's watercress is listed as endangered by the USFWS, and is listed as threatened by the CDFG. The Gambel's watercress is classified as an obligate wetland plant, which means that it almost always (greater than 99% of the time), under natural conditions, occurs in wetlands. Blooming April to September, the Gambel's watercress occurs in freshwater or brackish marshes along the margins of lakes or along slow-moving streams, from 5-1305m in elevation. The species requires a permanent source of water. The study area does not provide suitable habitat for the Gambel's watercress. In addition, the Gambel's watercress has not been observed within a 5-mile radius of the study area. The Gambel's watercress is ***absent*** from the study area.

Cushenbury Oxytheca (*Oxytheca parishii* var. *goodmaniana*). The Cushenbury oxytheca is listed as endangered by the USFWS. Blooming May to October, the Cushenbury oxytheca is endemic to the San Bernardino Mountains, and is restricted to the dry carbonate slopes on the north side of the range, at elevations of 1300–2375m. The study area does not provide suitable habitat for the Cushenbury oxytheca, nor is the study area within the elevation range of the Cushenbury oxytheca. In addition, the Cushenbury oxytheca has not been observed within a 5-mile radius of the study area. The Cushenbury oxytheca is ***absent*** from the study area.

Other Sensitive Biological Resources

Vegetation

Plants

In addition to the federal and State listed species detailed above, the CNDDB and CNPSEI literature review resulted in the identification of thirty-seven additional sensitive plant species that have a potential to occur on, or within the vicinity of, the study area. Of these, none were observed within the study area

during the general botanical survey of the property. The sensitive plant species, their current status, and their habitat requirements are summarized in Appendix A.

Taking into account the habitat, elevation, and blooming periods of each species, two of the thirty-seven sensitive plant species listed in Appendix A have a *moderate* or greater potential to occur within the study area:

High Potential to Occur:

- Plummer's mariposa lily (*Calochortus plummerae*)

Moderate Potential to Occur:

- mesa horkelia (*Horkelia cuneata* ssp. *puberula*)

Although these species carry no official State or federal listing, CEQA requires consideration of them during the environmental documentation process due to their limited distribution and/or declining numbers.

It should also be noted that even though no sensitive plant species were observed within the study area, not all species within the study area would have been in bloom during the time of the survey, and thus would not have been easily identifiable.

Habitats

In addition to individual plant species, sensitive habitats are considered important because of their high species diversity, high productivity, limited distribution, declining status, or a combination of these qualities. These habitats are recognized as important by local, State, and federal agencies, and identified by the CDFG in the CNDDB. These sensitive habitats are summarized in Appendix A.

None of the sensitive habitats listed in Appendix A exist within the study area.

Wildlife

In addition to the federal and State listed species detailed above, the CNDDB review resulted in the identification of thirty-five sensitive wildlife species that have the potential to occur on or within the vicinity of the study area. Of these, none were observed within the study area during the general wildlife survey of the property. The sensitive wildlife species, their current status, and their habitat requirements are summarized in Appendix A.

Taking into account the on-site habitat, elevation, and habitat requirements/restrictions of each species, the following ten of the thirty-five sensitive wildlife species listed in Appendix A has a *moderate* or greater potential to occur within the study area:

High Potential to Occur:

- coast (San Diego) horned lizard (*Phrynosoma coronatum blainvillii population*)

Moderate Potential to Occur:

- Bell's sage sparrow (*Amphispiza belli belli*)
- California horned lark (*Eremophila alpestris actia*)
- northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)
- pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*)
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)
- San Diego desert woodrat (*Neotoma lepida intermedia*)
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)
- orange-throated whiptail (*Aspidoscelis hyperythra*)
- rosy boa (*Charina trivirgata*)

Although these species carry no official State or federal listing, CEQA requires consideration of them during the environmental documentation process due to their limited distribution and/or declining numbers.

Jurisdictional Waters

Army Corps of Engineers Jurisdiction

Under Section 404 of the Clean Water Act ("CWA") the U.S. Army Corps of Engineers ("Corps") is charged with regulating the discharge of dredge and fill materials into jurisdictional waters of the United States. The term "waters of the United States," or "jurisdictional waters," has a broad meaning that includes special aquatic sites, such as wetlands. Waters of the United States, as defined by regulation and refined by case law, include: (1) the territorial seas; (2) coastal and inland waters, lakes, rivers, and streams that are navigable waters of the United States, including their adjacent wetlands; (3) tributaries to navigable waters of the United States, including adjacent wetlands; (4) interstate waters and their tributaries, including adjacent wetlands; and (5) all other waters of the United States not identified above, such as some isolated wetlands and lakes, intermittent and ephemeral streams, prairie potholes, and other waters that are not a part of a tributary system to interstate waters or navigable waters of the United States, the degradation or destruction of which could affect interstate commerce.

California Department of Fish and Game Jurisdiction

In addition to the federal regulatory authority, the State also routinely asserts jurisdiction over wetlands. When any alteration of a lake, stream, or river could adversely affect fish and wildlife resources within the State, the CDFG is empowered, under Section 1600 of CDFG Code, to issue a Streambed Alteration Agreement, which is designed to ensure protections of said resources.

Regional Water Quality Control Board Jurisdiction

The Regional Water Quality Control Board ("RWQCB") asserts jurisdiction over "waters of the United States" under Section 401 of the CWA, where such waters are also subject to Corps jurisdiction, pursuant to Section 404 of the CWA. The RWQCB can also assert jurisdiction over "waters of the state" pursuant to the Porter-Cologne Water Quality Control Act. If the Corps does not assert jurisdiction over the wetlands, it is expected that the RWQCB would assert jurisdiction under the Porter-Cologne Act.

REGULATORY FRAMEWORK

Relevant laws, policies, and guidelines are described below.

Federal

Endangered Species Act of 1973

The Endangered Species Act ("ESA") and implementing regulations, Title 16 United States Code ("USC") §1531 et seq. (16 USC 1531 et seq.), Title 50 Code of Federal Regulations ("CFR") §17.1 et seq. (50 CFR §17.1 et seq.), includes provisions for the protection and management of federally listed threatened or endangered plants and animals and their designated critical habitats. Section 7 of the ESA requires a permit to take threatened or endangered species during lawful project activities. The administering agency for the above authority is the USFWS for terrestrial, avian, and most aquatic species. The National Marine Fisheries Service ("NMFS") is responsible for administering the federal ESA as it applies to marine species and anadromous fish.

Fish and Wildlife Coordination Act

Section 7 of Fish and Wildlife Coordination Act, 16 USC 742 et seq., 16 USC 1531 et seq., and 50 CFR 17 requires consultation if any project facilities could jeopardize the continued existence of an endangered species. Applicability depends on federal jurisdiction over some aspect of the project. The administering agency for these authorities is expected to be the Corps in coordination with the USFWS.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act ("MBTA") (16 USC §§703–711) includes provisions for protection of migratory birds, including the nonpermitted take of migratory birds, under the authority of the USFWS and CDFG. The MBTA protects over 800 species including geese, ducks, shorebirds, raptors, songbirds, and many relatively common species.

Clean Water Act of 1977, Section 404

This section of the Act (33 USC 1251 et seq., 33 CFR §§320 and 323) gives the Corps authority to regulate discharges of dredge or fill material into waters of the U.S., including wetlands.

Clean Water Act of 1977, Section 401

This section of the Act requires a state-issued Water Quality Certification for all projects regulated under Section 404. In California, the RWQCB issues Water Quality Certifications with jurisdiction over the study area. The RWQCB, Santa Ana Region, issues Section 401 Water Quality Certifications for the study area.

State

California Endangered Species Act of 1984

The California Endangered Species Act ("CESA") and implementing regulations in the Fish and Game Code, §2050 through §2089, includes provisions for the protection and management of plant and animals species listed as endangered or threatened, or designated as candidates for such listing. Incidental take of an endangered species is permitted by CDFG only under certain conditions and provided that the proper federal permits have been obtained and notifications made to the CDFG as described in Fish and Game Code §2080.1. Plants of California declared to be endangered, threatened, or rare are listed at 14 CCR §670.2. Animals of California declared to be endangered or threatened are listed at 14 CCR §670.5.14. CCR §15000 et seq. describes the types and extent of information required to evaluate the effects of a proposed project on biological resources of a project site.

Fish and Game Code of California

The Fish and Game Code provides specific protection and listing for several types of biological resources.

Section 1600 of the Fish and Game Code requires a Streambed Alteration Agreement for any activity that may alter the bed and/or bank of a stream, river, or channel. Typical activities that require a Streambed Alteration Agreement include excavation or fill placed within a channel, vegetation clearing, structures for diversion of water, installation of culverts and bridge supports, cofferdams for construction dewatering, and bank reinforcement.

Section 2081(b) and (c) of the CESA allows CDFG to issue an incidental take permit for a state-listed threatened and endangered species only if specific criteria are met. These criteria can be found in Title 14 CCR, Sections 783.4(a) and (b). No Section 2081(b) permit may authorize the take of "fully protected" species and "specified birds." If a project is planned in an area where a species or specified bird occurs, an Applicant must design the project to avoid all take; the CDFG cannot provide take authorization under CESA.

Porter-Cologne Water Quality Control Act of 1970

The Porter-Cologne Water Quality Control Act ("Porter-Cologne Act") of 1970 grants the State Water Resources Control Board ("SWRCB") and its regional offices power to protect water quality, and is the

primary vehicle for implementation of California's responsibilities under Section 401 of the federal CWA. The Porter-Cologne Act grants the SWRCB authority and responsibility to adopt plans and policies, regulate discharges to surface and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazardous materials and other pollutants.

Native Plant Protection Act of 1977

The Native Plant Protection Act of 1977 and implementing regulations in Section 1900 et seq. of the Fish and Game Code designates rare and endangered plants, and provides specific protection measures for identified populations. It is administered by the CDFG.

Wetlands Conservation Policy of 1993

This policy provides for the protection, preservation, restoration, enhancement, and expansion of wetland habitats in California. Primarily it acts to ensure no overall net loss of wetlands within the state and achieve a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values in California in a manner that fosters creativity, stewardship, and respect for private property. The administering agencies for this authority are the CDFG, the California Environmental Protection Agency ("Cal-EPA"), and the RWQCB.

Regional

San Bernardino Valley Wide Multi-Species Habitat Conservation Plan

Presently, there is no approved Habitat Conservation Plan ("HCP")/Natural Communities Conservation Plan ("NCCP") for the valley portion of the County. The San Bernardino Valley-wide Multi Species Habitat Conservation Plan ("MSHCP") is currently in preparation. The proposed MSHCP encompasses approximately 500 square miles, containing six unlisted species, six State listed endangered or threatened species, and thirteen federally-listed endangered threatened species, and fifty-three species of special concern. The County, through the San Bernardino County Museum staff, has been conducting biological and botanical surveys for several years in order to identify habitat needs and requirements for the various species. The schedule for completion and adoption of the MSHCP is uncertain at this time. Completion of the plan is not expected anytime within the near future. The City participated in previous planning efforts, with the intent to be a "Local Permittee" upon adoption of the plan. Should work on the MSHCP resume, the City would reevaluate merits of participation.

Local

City of San Bernardino General Plan—Chapter 2: Land Use

Goal 2.6 Control development and the use of land to minimize adverse impacts on significant natural, historic, cultural, habitat, and hillside resources.

Policy 2.6.1 Hillside development and development adjacent to natural areas shall be designed and sited to maintain the character of the City's significant open spaces and historic and cultural landmarks.

Policy 2.6.2 Balance the preservation of plant and wildlife habitats with the need for new development through site plan review and enforcement of the CEQA.

City of San Bernardino General Plan—Chapter 12: Natural Resources and Conservation

Goal 12.1 Conserve and enhance San Bernardino's biological resources.

Policy 12.1.1 Acquire and maintain current information regarding the status and location of sensitive biological elements (species and natural communities) within the planning area.

Policy 12.1.2 Site and develop land uses in a manner that is sensitive to the unique characteristics of and that minimizes the impacts upon sensitive biological resources.

Policy 12.1.3 Require that all proposed land uses in the "Biological Resource Management Area" ("BRM")…be subject to review by the Environmental Review Committee ("ERC").

Policy 12.1.4 Require that development in the BRM:

a) Submit a report prepared by a qualified professional(s) that addresses the proposed project's impact on sensitive species and habitat, especially those that are identified in State and Federal conservation programs;

b) Identify mitigation measures necessary to eliminate significant adverse impacts to sensitive biological resources;

c) Define a program for monitoring, evaluating the effectiveness of, and ensuring the adequacy of the specified mitigation measures; and

d) Discuss restoration of significant habitats.

City of San Bernardino Municipal Code

Chapter 15.34: **Removal or Destruction of Trees.** Prohibit the removal and/or destruction of more than five trees within any thirty-six month period from a development site or parcel of property without first being issued a permit from the Development Services Department. Per the ordinances, a permit shall not be required when a lawful order to remove the trees for health and safety purposes has been issued by a local, state or federal government agency; nor shall a permit be required if a removal is to be accomplished by, or under the auspices of a governmental entity.

PROJECT IMPACTS

Potential impacts of construction and operation of the proposed project are discussed below.

Endangered, Threatened, and Sensitive Species

Listed Species

No federally or State listed threatened or endangered species were observed within the study area during the biological field surveys of the entire property; however, these surveys were not intended to formally determine the presence/absence of threatened or endangered species, only assess the potential for them to occur based on habitat suitability. As discussed in the *Sensitive Biological Resources—Federally and State Listed Species—Wildlife* section of this document, two federally (USFWS) listed species were identified as potentially occurring within the study area. The coastal California gnatcatcher and San Bernardino kangaroo rat both have a *high* potential to occur within the study area. If any of these species are determined to occur within the study area, impacts to these species could be considered significant. Pending the completion of on-going focused surveys for coastal California gnatcatcher and San Bernardino kangaroo rat, the loss of any habitat containing federally or State listed threatened or endangered species is considered ***potentially significant***.

Other (Non-Listed) Sensitive Species

No non-listed sensitive plant or wildlife species were observed within the study area during the biological field surveys of the entire property; however, these surveys were not intended to formally determine the presence/absence of non-listed sensitive plant or wildlife species, only assess the potential for them to occur based on habitat suitability. Non-listed sensitive species are those that are listed as State Species of Concern, Federal Species of Concern, and CNPS list 1A, 1B, and 2. As discussed in the *Sensitive Biological Resources—Other Sensitive Biological Resources—Wildlife* and *Plants* sections of this document, two sensitive species were identified as having a *high* potential of occurring within the study area, and ten sensitive species were identified as having a *moderate* potential of occurring within the study area.

The coast (San Diego) horned lizard is a non-listed wildlife species, and the Plummer's mariposa lily is a non-listed sensitive plant species, with a *high* potential to occur within the study area. The Bell's sage

sparrow, California horned lark, northwestern San Diego pocket mouse, pallid San Diego pocket mouse, San Diego black-tailed jackrabbit, San Diego desert woodrat, Los Angeles pocket mouse, orange-throated whiptail, and rosy boa are non-listed wildlife species, and the mesa horkelia is a non-listed sensitive plant species, with a *moderate* potential to occur within the study area.

If any of these species are present during ground disturbance, construction, operation, and maintenance activities associated with the proposed project, including, but not limited to grading, materials laydown, building construction, and construction and/or service vehicle traffic, it could result in direct impacts to these species, including the following:

- direct loss of a sensitive species;
- increased human disturbance;
- mortality by construction or other human-related activity;
- impairing essential behavioral activities, such as breeding, feeding, or shelter/refuge;
- destruction or abandonment of active nest(s);
- direct loss of occupied habitat; and
- permanent habitat loss including loss of foraging, nesting, or refuge.

In addition, potential indirect impacts could include, but are not limited to, the following:

- displacement of wildlife by construction activities; and
- disturbance in essential behavioral activities due to an increase in ambient noise levels and/or artificial light from plant lighting, and outdoor lighting around facilities.

Under CEQA, the Lead Agency for the proposed project would determine, on a case by case basis, whether or not impacts to non-listed sensitive species would be considered significant; however, under CEQA Section 15380, impacts to sensitive species are considered ***potentially significant***.

Sensitive Vegetation Communities

The proposed project would directly impact coastal sage scrub (20.91 acres), critical habitat for the coastal California gnatcatcher (along with other sensitive species whose numbers are in decline due to the destruction of coastal sage scrub habitat) by the USFWS. Permanent loss of this sensitive habitat is considered a ***potentially significant*** impact.

Migratory Birds

Pending completion of the focused surveys for the coastal California gnatcatcher, no threatened or endangered avian species has been reported to occur within the study area; however, migratory avian species and raptors, which may use the large western sycamore trees located within the study area during breeding season, are protected under the MBTA while nesting. The loss or disturbance of an MBTA protected occupied nest, or substantial interference with roosting and foraging opportunities for migratory species, sensitive avian species, or raptors, is considered a ***potentially significant*** impact.

Jurisdictional Waters

According the USGS 7.5-minute series topographic map for San Bernardino North, a "blueline" stream does not run through the study area, and accordingly, the study area does not contain riparian habitat; however, it is suggested that concurrence from the Corps and RWQCB be obtained.

While an ephemeral wash does cross through the central portion of the study area, eventually dissipating at the western base of the larger of the two hill features located within the property, this wash is extremely degraded, with no defined bed or bank, and no hydrophytic vegetation. This feature is isolated, and does not exhibit connectivity to any other drainageway outside of the study area. It does intercept discharges from along I-215 and its on-/off-ramps, and Palm Avenue, during heavy precipitation events.

The Corps and RWQCB reserve the right, on a case by case basis, to determine whether or not potential jurisdictional waters lie within their regulatory boundaries. If it is determined that areas that are jurisdictional would be impacted (per Section 404 and 401 of the CWA), the Applicant could be required to notify the Corps and/or the RWQCB, and obtain a Section 404 and/or 401 Permit prior to final approval of grading and site construction plans. In addition, the CDFG would require a Streambed Alteration Agreement (per CDFG Code). While final concurrence from the Corps and RWQCB is recommended, this impact is considered ***less than significant***.

Wildlife Movement

Wildlife movement is defined and described in the *On-Site Biological Resources—Wildlife Movement* section of this document. There are no wildlife nursery sites within the study area. The study area is not part of a major or local wildlife corridor/travel route, as it does not serve to connect two significant habitats. It is surrounded by industrial and commercial uses, a heavily travel interstate highway, and wide, four-lane streets. As such, the study area does not fit in to any of the wildlife movement categories previously described (travel route, wildlife crossing, wildlife corridor), and development of the proposed project would only disrupt local foraging of the avian and ground-dwelling species. Impacts to avian and ground dwelling species are analyzed above. Impacts to wildlife movement are considered ***less than significant***.

Adopted Habitat Conservation Plan, Natural Community Conservation Plan, or Other Approved Local, Regional, or State Habitat Conservation Plan

The study area has not been incorporated in to a HCP or NCCP. As mentioned previously, in the *Regulatory Framework—Regional* section of this document, the *San Bernardino Valley Wide Multi-Species Habitat Conservation Plan* is still under preparation; the schedule for completion and adoption of the MSHCP is uncertain at this time. As such, the proposed project would not conflict with an adopted HCP, NCCP, or other approved local, regional, or State HCP, and no there is **no impact**.

Local Policies and Ordinances Protecting Biological Resources

Applicable City policies and/or ordinances are detailed in the *Regulatory Framework—Local* section of this document. In preparing this Biological Technical Report, the Applicant has adhered to Policy 12.1.4 of the City's General Plan. In addition to Policy 12.1.4, the *Biological Technical Report* also fulfills the Applicant's responsibility of acquiring and maintaining current information regarding the status and location of sensitive biological elements within the planning area (Policy 12.1.1). In accordance with Policy 12.1.3, the proposed project has already been reviewed by the ERC on August 15th, 2007. As buildout of the proposed project will require the removal of over five trees within the study area, the Applicant will be required to receive a permit from the City's Development Services Department (per Chapter 15.34 [Removal or Destruction of Trees] of the City's Municipal Code). The proposed project is consistent with Policies 2.6.2 and 12.1.2, as the Applicant is currently in the process of preparing an EIR for the proposed project, ensuring compliance with CEQA and minimization of biological impacts. As such, impacts related to local policies and ordinances protecting biological resources are ***less than significant***.

RECOMMENDED MITIGATION MEASURES

Threatened, Endangered, and Sensitive Species

Listed Species

MM-1 *If, at the conclusion of on-going focused surveys, the coastal California gnatcatcher and/or San Bernardino kangaroo rat are not found to be present within the study area, than impacts related to listed species are considered* ***less than significant****. However, if at the conclusion of on-going focused surveys, the coastal California gnatcatcher and/or San Bernardino kangaroo rat are found to be present within the study area, mitigation would be required under the ESA. To this extent, mitigation measures shall be developed with the USFWS to reduce potential significant impacts to these species to* ***less-than-significant*** *levels through a combination of:*

- *avoidance of impacts;*
- *on-site preservation or habitat enhancement;*
- *off-site mitigation through the purchase of suitable habitat or participation on an existing mitigation bank; and*
- *preparation of a Habitat Conservation Plan if there is no Federal nexus.*

Non-Listed Sensitive Plant Species

MM-2 *Due to potentially suitable habitat present within the study area for two non-listed sensitive plant species, the project applicant shall retain a qualified biologist or botanist to conduct a pre-construction survey of the area within the footprint of impact, and extended 50-feet outside of the impact area. The survey shall be conducted according to applicable CNPS and CDFG protocols, during the species blooming period or, if applicable and appropriate, immediately prior to the onset of project-related*

disturbances. The purpose of the pre-construction survey shall be to locate any special-status plant species that have a moderate or greater potential to occur within or directly adjacent to the proposed area. These surveys shall be restricted to habitat types that could support special-status plant species that have the potential to occur within the proposed project's impact area, including the following plant species:

- *Plummer's mariposa lily; and*
- *mesa horkelia*

If no non-listed sensitive plant species are determined to be in the proposed project's impact area, then no further mitigation would be necessary and impacts related to non-listed sensitive plant species are considered ***less than significant****. If non-listed sensitive plant species are determined to be present within or directly adjacent to the proposed project's impact area, and cannot be avoided, the following mitigation is recommended to reduce impacts to a* ***less-than-significant*** *level:*

(A) A report shall be submitted to the CDFG that includes, at a minimum, a description of methodology, including dates of field visits; the names of survey personnel with résumés; a list of references cited and persons contacted; and a map showing the location(s) of any non-listed sensitive plant species observed within or adjacent to the study area, and mitigation plan if required by the agencies.

(B) Non-listed sensitive plant species populations shall be avoided to the extent feasible. For those plants that cannot be avoided, they shall be transplanted to a mitigation site approved by the CDFG. The success criteria of the transplantation program shall include 80 percent or more of the transplanted plants surviving five years after transplantation. Mitigation projects will be implemented and monitored annually for five years using success criteria developed in coordination with the CDFG.

(C) The mitigation report shall also detail the relocation and avoidance strategy and shall be submitted to the CDFG, and, if required, the USFWS for comment, prior to implementation.

Non-Listed Sensitive Wildlife Species

MM-3 *Due to potentially suitable habitat present within the study area for ten non-listed sensitive wildlife species, the project Applicant shall retain a qualified biologist to conduct a pre-construction survey of the area within the footprint of impact, and extended 50-feet outside of the impact area. The survey shall be conducted according to applicable CDFG protocols, prior to the onset of project-related disturbances. The purpose of the pre-construction survey shall be to locate any special-status wildlife species that have a moderate or greater potential to occur within or directly adjacent to the proposed project's impact area, and would not be mobile enough to avoid construction activities. These surveys shall including the following species:*

- *coast (San Diego) horned lizard*
- *Bell's sage sparrow*
- *California horned lark*
- *northwestern San Diego pocket mouse*
- *pallid San Diego pocket mouse*
- *San Diego black-tailed jackrabbit*

- *San Diego desert woodrat*
- *Los Angeles pocket mouse*
- *orange-throated whiptail*
- *rosy boa*

If no non-listed sensitive wildlife species are determined to be within or directly adjacent to the proposed project's impact area, then no further mitigation would be necessary and impacts related to non-listed sensitive wildlife species are considered ***less than significant****. If non-listed sensitive wildlife species are determined to be present within or directly adjacent to the proposed project's impact area, and cannot be avoided, the following mitigation is recommended to reduce impacts to a* ***less-than-significant*** *level:*

(A) A mitigation report shall be submitted to the CDFG that includes, at a minimum, a description of methodology, including dates of field visits; the names of survey personnel with résumés; a list of references cited and persons contacted; and a map showing the location(s) of any non-listed sensitive wildlife species observed within or adjacent to the study area.

(B) Five days prior to grading of the study area, sensitive rodent and reptilian species shall, to the extent possible, be passively relocated to suitable adjacent habitat. Collection and relocation of wildlife shall only occur with the proper scientific collection and handling permits.

(C) The mitigation report shall also detail the relocation and avoidance strategy and shall be submitted to the CDFG, and, if required, the USFWS for comments prior to project implementation.

Sensitive Vegetation Communities

MM-4 *To compensate for temporary losses of sensitive on-site habitat resources, the Applicant shall, at a ratio no less than 1:1, restore or preserve on-site, contiguous areas of coastal sage scrub vegetation community. If restoration is not possible on-site, or if preferred by the Applicant, the Applicant may purchase mitigation credits at a USFWS approved mitigation bank at ratios of no less than 1:1.*

Migratory Birds

MM-5 *If the proposed project's construction phase occurs during the avian breeding season (generally February 1 through August 15), then prior to the onset of construction activities, surveys for nesting special status and/or migratory avian species and raptors will be conducted on the affected portion of the study area, following USFWS and/or CDFG guidelines.*

If no active avian nests are identified on or within 250-feet of the construction areas, no further mitigation is necessary. If active nests for special status avian species, migratory species, or raptors are found within the footprint of impact, or a 250-foot buffer zone, construction shall be delayed within the footprint of impact and buffer zone until the young have fledged, or appropriate mitigation measures responding to the specific situation are developed in consultation with CDFG.

Alternatively, to avoid impacts, the Applicant can begin construction after the previous breeding season for local raptors and other special status avian species has ended (generally after August 15) and before the next breeding season begins (generally before February 1). Should special status avian

species and/or raptors choose to nest in an area within 250-feet of active construction that was initiated after August 15, and prior to February 1 of the following year, the Applicant shall only be required to provide a buffer of 200-feet between activities and the nest site.

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Appendix A Special-Status Wildlife & Plant Species Potentially Occurring within the Study Area

Appendix A SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA				
Common Name	**Scientific Name**	**Status[2] Fed/CA/other**	**Habitat and Seasonal Distribution in California**	**Likelihood of Occurrence within the Study Area**
WILDLIFE				
Amphibians				
San Gabriel Mountains slender salamander	*Batrachoseps gabrieli*	none/CSC/none	Talus slopes in areas of oak, big cone spruce, pine, incense cedar, California laurel, and maple.	**Absent;** insufficient habitat.
arroyo toad	*Bufo californicus*	endangered/CSC/none	Near washes or intermittent streams with sandy banks, willows, and cottonwoods	**Absent;** insufficient habitat.
California red-legged frog	*Rana aurora draytonii*	threatened/CSC/none	Breeds in stock ponds, pools, and slow-moving streams with emergent vegetation for escape cover and egg attachment. Where water is seasonal, often uses mammal burrows in upland habitat for aestivation. Requires a permanent water source for successful reproduction.	**Absent;** insufficient habitat.
mountain yellow-legged frog	*Rana muscosa*	endangered/CSC/none	Prefers rocky stream courses in the mountains of southern California. Inhabits mid- to upper elevation perennial streams, often in locations with bedrock pools. Always encountered within a few feet of water.	**Absent;** insufficient habitat.
Birds				
Cooper's hawk	*Accipiter cooperii*	none/CSC/none	Inhabits open, interrupted, or marginal woodlands. Nest sites are mainly in riparian growths of deciduous trees.	**Absent;** insufficient habitat.
Bell's sage sparrow	*Amphispiza belli belli*	none/CSC/none	Frequents low, fairly dense stands of shrubs within coastal sage scrub or chaparral habitat.	**Moderate.**

Appendix A SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA				
Common Name	**Scientific Name**	**Status[2] Fed/CA/other**	**Habitat and Seasonal Distribution in California**	**Likelihood of Occurrence within the Study Area**
burrowing owl	*Athene cunicularia*	none/CSC/none	Dry grasslands, desert habitats, and open-pinyon/juniper and ponderosa pine woodlands below.	**Low;** species not observed during August 2, 2007 field survey. No evidence of whitewash, feathers, pellets, etc. was observed around potentially suitable burrowing habitat.
western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	candidate/endangered/none	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow; often mixed with cottonwoods with lower story of blackberry, nettles, or wild grape.	**Absent;** insufficient habitat.
yellow warbler	*Dendroica petechia brewsteri*	none/CSC/none	Inhabits ruderal, riparian, and other terrestrial habitats. It favors wet habitats, especially alders, open woodlands, and gardens.	**Absent;** insufficient habitat.
southwestern willow flycatcher	*Empidonax traillii extimus*	endangered/endangered/none	Inhabits extensive thickets of low, dense willows on the edge of rivers, wet meadows, ponds, and backwaters.	**Absent;** insufficient habitat.
California horned lark	*Eremophila alpestris actia*	none/CSC/none	The horned lark is a common to abundant resident in a variety of open habitats, usually where trees and large shrubs are absent, such as row-crop fields.	**Moderate.**
bald eagle	*Haliaeetus leucocephalus*	Delisted (fully recovered)/endangered/none	Nests in large, old-growth, and dominant live trees within 1-mile of water, where it may also spend winters along ocean shore, lake margins, and rivers.	**Absent;** insufficient habitat.
Westfork shoulderband	*Helminthoglypta taylori*	none/CSC/none	Vicinity of the Mojave River. Under logs and leaves.	**Absent;** insufficient habitat.

Appendix A SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA				
Common Name	**Scientific Name**	**Status[2] Fed/CA/other**	**Habitat and Seasonal Distribution in California**	**Likelihood of Occurrence within the Study Area**
yellow-breasted chat	*Icteria virens*	none/CSC/none	Occurs in woodland edges, neglected pastures, thick shrubbery, briar thickets, willow thickets, and shrubby wet meadows.	**Low.**
loggerhead shrike	*Lanius ludovicianus*	none/CSC/none	Broken woodlands, savannah, pinyon/juniper, Joshua tree, riparian woodlands, desert Oases, scrub, and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	**Low.**
coastal California gnatcatcher	*Polioptila californica californica*	threatened/CSC/none	Coastal sage scrub vegetation below 800m elevation in Riverside County and generally below 300m elevation along the coastal slope; generally avoids steep slopes and dense vegetation for nesting.	**High.**
least Bell's vireo	*Vireo bellii pusillus*	endangered/endangered/none	Summer resident of southern California in low riparian; in vicinity of water or in dry river bottoms; below 700m. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, *baccharis*, and mesquite.	**Absent;** insufficient habitat.
Fish				
Santa Ana sucker	*Catostomus santaanae*	threatened/CSC/none	Prefer sand-rubble-boulder bottoms, cool, clear water, and algae. Streams of varying width and depth with appropriate substrate (mix of sand, gravel, cobble, and boulder).	**Absent;** insufficient habitat.

Appendix A SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA				
Common Name	**Scientific Name**	**Status[2] Fed/CA/other**	**Habitat and Seasonal Distribution in California**	**Likelihood of Occurrence within the Study Area**
arroyo chub	*Gila orcuttii*	none/CSC/none	Slow water stream sections with mud or sand bottoms. Feed heavily on aquatic vegetation and associated invertebrates.	**Absent;** insufficient habitat.
Santa Ana speckled dace	*Rhinichthys osculus ssp.*	none/CSC/none	Prefer stony habitat where there are hiding spaces between stones washed by moderate current.	**Absent;** insufficient habitat.
Invertebrate				
Busck's gallmoth	*Carolella busckana*	none/CSC/none	Unknown.	**Low.**
greenest tiger beetle	*Cicindela tranquebarica viridissima*	none/CSC/none	Inhabits the woodlands adjacent to the Santa Ana River basin. Usually found in open spots between trees.	**Absent;** insufficient habitat.
Andrew's marble butterfly	*Euchloe hyantis andrewsi*	none/CSC/none	Inhabits yellow pine forest near Lake Arrowhead and Big Bear Lake, San Bernardino Mountains, San Bernardino county. 1700-2000m.	**Absent;** insufficient habitat and outside elevation.
Delhi Sands flower-loving fly	*Rhaphiomidas terminatus abdominalis*	endangered/none/none	Found in areas of the Delhi Sands formation in southwestern San Bernardino and northwestern Riverside counties. Requires fine, sandy soils, often with wholly or partly consolidated dunes and sparse vegetation.	**Absent;** insufficient habitat.
Mammals				
pallid bat	*Antrozous pallidus*	none/CSC/none	Open, dry habitats with rocky outcrops, cliffs, caverns, and crevices for roosting; most commonly in deserts, grasslands, and shrublands, in addition to woodlands and forest.	**Absent;** insufficient habitat.

Appendix A SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA				
Common Name	**Scientific Name**	**Status[2] Fed/CA/other**	**Habitat and Seasonal Distribution in California**	**Likelihood of Occurrence within the Study Area**
northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*	none/CSC/none	Chaparral, coastal sage scrub (Riversidean and Diegan), desert scrub, grassland, juniper woodland and scrub, and Riversidean alluvial fan sage scrub.	**Moderate.**
pallid San Diego pocket mouse	*Chaetodipus fallax pallidus*	none/CSC/none	Desert border areas in eastern San Diego County. In desert wash, desert scrub, desert succulent scrub, and pinyon/juniper. Sandy, herbaceous areas; usually in association with rocks or coarse gravel.	**Moderate.**
San Bernardino kangaroo rat	*Dipodomys merriami parvus*	endangered/CSC/none	Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains.	**High.**
Stephens' kangaroo rat	*Dipodomys stephensi*	endangered/threatened/none	Is found almost exclusively in open grasslands or sparse shrublands with cover of less than 50% during the summer. Typically is found in sandy and sandy loam soils with a low clay to gravel content	**Low.**
western mastiff bat	*Eumops perotis californicus*	none/CSC/none	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	**Absent;** insufficient habitat.
San Bernardino flying squirrel	*Glaucomys sabrinus californicus*	none/CSC/none	Black oak or white fir dominated woodlands. San Bernardino and San Jacinto ranges. Need cavities in trees/snags for nests and cover. Needs nearby water. 1800 – 2800m.	**Absent;** insufficient habitat and outside elevation.

Appendix A SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA				
Common Name	**Scientific Name**	**Status[2] Fed/CA/other**	**Habitat and Seasonal Distribution in California**	**Likelihood of Occurrence within the Study Area**
western yellow bat	*Lasiurus xanthinus*	none/CSC/none	Western yellow bats are thought to be non-colonial. Individuals usually roost in trees, hanging from the underside of a leaf. They are commonly found in the southwestern U.S., roosting in the skirt of dead fronds in both native and non-native palm trees.	**Absent;** insufficient habitat.
San Diego black-tailed jackrabbit	*Lepus californicus bennettii*	none/CSC/none	Open brushlands and scrub habitats. 0-1300m.	**Moderate.**
lodgepole chipmunk	*Neotamias speciosus speciosus*	none/CSC/none	Manzanita flowers and berries, nutlets, subterranean fungi, and caterpillars are important foods. In the San Gabriel Mountains, the lodgepole chipmunk often sits on the upper stems of a snowbush to scan its environment. It occurs in the mountains with Merriam's Chipmunk, which it replaces at higher elevations.	**Absent;** insufficient habitat.
San Diego desert woodrat	*Neotoma lepida intermedia*	none/CSC/none	Variety of habitats, often in the vicinity of rocky outcrops; prefer moderate to dense canopies.	**Moderate.**
pocketed free-tailed bat	*Nyctinomops femorosaccus*	none/CSC/none	Big free-tailed bats roost mainly in crevices and rocks in cliff situations, although there is some documentation of roosts in buildings, caves, and tree cavities.	**Absent;** insufficient habitat.

Appendix A SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA				
Common Name	**Scientific Name**	**Status[2] Fed/CA/other**	**Habitat and Seasonal Distribution in California**	**Likelihood of Occurrence within the Study Area**
southern grasshopper mouse	*Onychomys torridus*	none/CSC/none	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	**Low.**
white-eared pocket mouse	*Perognathus alticolus alticolus*	none/CSC/none	Ponderosa and Jeffrey pine habitats; also in mixed chaparral and sagebrush habitats in the San Bernardino Mountains. Burrows are constructed in loose soil.	**Absent;** insufficient habitat.
Los Angeles pocket mouse	*Perognathus longimembris brevinasus*	none/CSC/none	Coastal sage scrub, grasslands, desert cactus, creosote bush, and sagebrush habitats.	**Moderate.**
American badger	*Taxidea taxus*	none/CSC/none	Most abundant in drier, open stages of most shrub, forest, and herbaceous habitats, with friable soils. Need sufficient food, friable soils, and open, uncultivated ground. Prey on burrowing rodents. Digs burrows.	**Absent;** insufficient habitat.
Reptiles				
silvery legless lizard	*Anniella pulchra pulchra*	none/CSC/none	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. Prefers soils with high moisture content.	**Low.**

Appendix A SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA				
Common Name	**Scientific Name**	**Status[2] Fed/CA/other**	**Habitat and Seasonal Distribution in California**	**Likelihood of Occurrence within the Study Area**
orange-throated whiptail	*Aspidoscelis hyperythra*	none/CSC/none	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its major food-termites.	**Moderate.**
coastal western whiptail	*Aspidoscelis tigris stejnegeri*	none/CSC/none	Found in deserts and semiarid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	**Low.**
rosy boa	*Charina trivirgata*	none/CSC/none	In coastal areas it occurs in rocky coastal sage scrub, chaparral, and mixed habitats on hillsides and canyons; while in the desert areas it occurs on scrub flats with good cover. Rock outcrops are commonly found in habitats used by this species.	**Moderate.**
southern rubber boa	*Charina umbratica*	none/threatened/none	Restricted to the San Bernardino and San Jacinto Mountains; found in a variety of montane forest habitats, in vicinity of streams or wet meadows. The southern rubber boa requires loose, moist soil for burrowing; seeks cover in rotting logs.	**Absent;** insufficient habitat.

Appendix A SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA				
Common Name	**Scientific Name**	**Status[2] Fed/CA/other**	**Habitat and Seasonal Distribution in California**	**Likelihood of Occurrence within the Study Area**
northern red-diamond rattlesnake	*Crotalus ruber rubber*	none/CSC/none	Associated with chaparral, woodland, grassland, and desert communities from coastal San Diego county to the eastern slopes of the mountains. Prefers rocky areas with dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects for shelter.	**Low.**
coast (San Diego) horned lizard	*Phrynosoma coronatum (blainvillii population)*	none/CSC/none	Valley/foothill hardwood, conifer, riparian, pine/cypress, juniper, and annual grassland habitats. Open country, especially sandy areas, washes, flood plains, and windblown deposits. 0-2000m.	**High.**
two-striped garter snake	*Thamnophis hammondii*	none/CSC/none	Found in or near permanent or intermittent freshwater, often along streams with rocky beds bordered by willows or other streamside growth. Frequents oak woodland, brushlands, and sparse coniferous forests.	**Absent;** insufficient habitat.
PLANTS				
chaparral sand-verbena	*Abronia villosa var. aurita*	none/none/1B	Chaparral, coastal scrub. Sandy areas. 80-1600m. Blooming March to August.	**Absent;** although the sage scrub habitat at the study area could provide potentially suitable habitat, this species would have been in bloom and observed during the August 2, 2007 field survey.
singlewhorl burrobrush	*Ambrosia monogyra*	none/none/2	Chaparral, Sonoran desert scrub. Sandy soils. 10-500m. Blooming August to November.	**Absent;** insufficient habitat and outside elevation.

Appendix A SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA				
Common Name	**Scientific Name**	**Status[2] Fed/CA/other**	**Habitat and Seasonal Distribution in California**	**Likelihood of Occurrence within the Study Area**
pinyon rock cress	*Arabis dispar*	none/none/2	Joshua tree woodland, pinyon-juniper woodland, Mojavean desert scrub. Granitic, gravelly slopes, and mesas. Often under desert shrubs which support it as it grows. 1200-2400m. Blooming March to June.	**Absent;** insufficient habitat and outside elevation.
Parish's rock cress	*Arabis parishii*	none/none/1B	Pebble plain, pinyon-juniper woodland, upper montane coniferous forest. Generally found on pebble plains on clay soil withquartzite cobbles; sometimes on limestone. 1770-2900m. Blooming April to May.	**Absent;** insufficient habitat and outside elevation.
Shockley's rock cress	*Arabis shockleyi*	none/none/2	Pinyon and juniper woodland. On ridges, rocky outcrops and openings on limestone or quartzite; usually in pinyon or pimyom/juniper Series. 875-2205m. Blooming May to June.	**Absent;** insufficient habitat and outside elevation.
marsh sandwort	*Arenaria paludicola*	endangered/endangered/1B	Marshes and swamps. Growing up through dense mats of typha, juncus, scirpus. In freshwater marsh. 10-170m. Blooming May to August.	**Absent;** insufficient habitat and outside elevation.
Big Bear Valley milk-vetch	*Astragalus lentiginosus var. sierrae*	none/none/1B	Mojavean desert scrub, meadows, pinyon-juniper woodland, upper montane coniferous forest. Stony meadows and open pinewoods; sandy and gravelly soils in a variety of habitats. 1800-2600m. Blooming April to August.	**Absent;** insufficient habitat and outside elevation.

Appendix A SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA				
Common Name	**Scientific Name**	**Status[2] Fed/CA/other**	**Habitat and Seasonal Distribution in California**	**Likelihood of Occurrence within the Study Area**
Big Bear Valley woollypod	*Astragalus leucolobus*	none/none/1B	Lower montane coniferous forest, pebble plain, pinyon and juniper woodland, and upper montane oniferous forest. Dry pine woods, gravelly knolls among sagebrush, or stony lake shores in the pine belt. 1670-2515m. Blooming May to July.	**Absent;** insufficient habitat and outside elevation.
Nevin's barberry	*Berberis nevinii*	endangered/endangered/1B	Chaparral, cismontane woodland, and coastal scrub, riparian scrub. On steep, north facing slopes, or in low grade sandy washes. 290-1575m. Blooming March to June.	**Absent;** although the sage scrub habitat at the study area could provide potentially suitable habitat, this highly visible (1 to 4 meters tall) species would have been observed during the August 2, 2007 field survey.
thread-leaved brodiaea	*Brodiaea filifolia*	threatened/endangered/1B	This species typically occurs on gentle hillsides, valleys, and floodplains in semi-alkaline mudflats, vernal pools, mesic southern needlegrass grassland, mixed native-nonnative grassland, and alkali grassland plant communities in association with clay, loamy sand, or alkaline silty-clay soils. Blooming March to June.	**Absent;** insufficient habitat.
Palmer's mariposa lily	*Calochortus palmeri var. palmeri*	none/none/1B	Meadows and seeps, chaparral, and lower montane coniferous forest. Vernally moist places in yellow-pine forest and chaparral. 600-2245m. Blooming May to July.	**Absent;** insufficient habitat.

Appendix A SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA				
Common Name	**Scientific Name**	**Status[2] Fed/CA/other**	**Habitat and Seasonal Distribution in California**	**Likelihood of Occurrence within the Study Area**
Plummer's mariposa lily	*Calochortus plummerae*	none/none/1B	Perennial herb; coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, and lower montane coniferous forest. Blooming May to July.	**High;** although the sage scrub habitat at the study area could provide potentially suitable habitat, and Plummer's mariposa lily has been observed within a 1-mile radius of the study area, this species was not observed during the August 2, 2007 field survey; however, as this species can be very inconspicuous and was not in bloom, there is still a high likelihood of occurrence.
Booth's evening-primrose	*Camissonia boothii ssp. boothii*	none/none/2	Joshua tree woodland and pinyon/juniper woodland. 900-2400m. Blooming April to September.	**Absent;** insufficient habitat and outside elevation.
bristly sedge	*Carex comosa*	none/none/2	Marshes and swamps. Lake margins, and wet places; site below sea level is on a delta island. -5-1005m. Blooming May to September.	**Absent;** insufficient habitat.
San Bernardino Mountains owl's-clover	*Castilleja lasiorhyncha*	none/none/1B	Meadows, pebble plain, upper montane coniferous forest, and chaparral. Mesic to drying soils in open areas of stream and meadow margins or of vernally wet areas. 1135-2390m. Blooming May to August.	**Absent;** insufficient habitat and outside elevation.
smooth tarplant	*Centromadia pungens ssp. laevis*	none/none/1B	Valley and foothill grassland, chenopod scrub, meadows, playas, and riparian woodland. Alkali meadow, alkali scrub; also in disturbed places. 0-480m. Blooming April to September.	**Absent;** insufficient habitat and outside elevation.

Appendix A SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA				
Common Name	**Scientific Name**	**Status[2] Fed/CA/other**	**Habitat and Seasonal Distribution in California**	**Likelihood of Occurrence within the Study Area**
white-bracted spineflower	*Chorizanthe xanti var. leucotheca*	none/none/1B	Mojavean desert scrub and pinyon/juniper woodland. 300-1200m. Blooming April to June.	**Absent;** insufficient habitat.
salt marsh bird's-beak	*Cordylanthus maritimus ssp. maritimus*	endangered/endangered/1B	Coastal salt marsh, coastal dunes. Limited to the higher zones of the salt marsh habitat. 0-30m. Blooming May to October.	**Absent;** insufficient habitat and outside elevation.
Mojave tarplant	*Deinandra mohavensis*	none/endangered/1B	Riparian scrub and chaparral. Low sand bars in river bed; mostly in riparian areas or in ephemeral grassy areas. 850-1600m. Blooming July to October.	**Absent;** insufficient habitat and outside elevation.
slender-horned spineflower	*Dodecahema leptoceras*	endangered/endangered/1B	Chaparral, alluvial fan sage scrub. Flood deposited terraces and washes; associates include *encelia*, *dalea*, and *lepidospartum*. 200-760m. Blooming April to June.	**Absent;** insufficient habitat.
San Bernardino Mountains dudleya	*Dudleya abramsii ssp. affinis*	none/none/1B	Pebble (pavement) plain, upper montane coniferous forest, pinyon, and juniper woodland. Outcrops of granite or quartzite; rarely limestone. 1270-2600m. Blooming April to June.	**Absent;** insufficient habitat and outside elevation.
many-stemmed dudleya	*Dudleya multicaulis*	none/none/1B	Chaparral, coastal scrub, and valley and foothill grassland. In heavy, often clayey soils or grassy slopes. 0-790m. Blooming May to June.	**Absent;** although the sage scrub habitat at the study area could provide potentially suitable habitat, and many-stemmed dudleya has been observed within a 5-mile radius of the study area, this unique and highly visible species would have been observed during the August 2, 2007 field survey.

Appendix A SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA				
Common Name	**Scientific Name**	**Status[2] Fed/CA/other**	**Habitat and Seasonal Distribution in California**	**Likelihood of Occurrence within the Study Area**
Santa Ana River woollystar	*Eriastrum densifolium ssp. sanctorum*	endangered/endangered/1B	Found only within open washes and early-successional alluvial fan scrub on open slopes above main watercourses on fluvial deposits where flooding and scouring occur at a frequency that allows the persistence of open shrublands. Suitable habitat is comprised of a patchy distribution of gravelly soils, sandy soils, rock mounds, and boulder fields. 150–610m. Blooming June to September.	**Absent;** insufficient habitat and outside elevation.
Parish's daisy	*Erigeron parishii*	threatened/none/1B	Mojavean desert scrub, pinyon/juniper woodland, Joshua tree woodland. Often on carbonate and limestone mountain slopes; often associated with drainages. 1090-2000m. Blooming May to June.	**Absent;** insufficient habitat and outside elevation.
southern mountain buckwheat	*Eriogonum kennedyi var. austromontanum*	threatened/none/1B	Pebble (pavement) plain, lower montane coniferous forest. Usually found in pebble plain habitats. 1755-2375m. Blooming July to September.	**Absent;** insufficient habitat and outside elevation.
Cushenbury buckwheat	*Eriogonum ovalifolium var. vineum*	endangered/none/1B	Mojavean desert scrub, pinyon/juniper woodland, and Joshua tree woodland. Limestone mountain slopes. Dry, usually rocky, places. 1400-2440m. Blooming May to August.	**Absent;** insufficient habitat and outside elevation.
hot springs fimbristylis	*Fimbristylis thermalis*	none/none/2	Meadows (alkaline). Near hot springs. 120-1340m.	**Absent;** insufficient habitat.

Appendix A SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA				
Common Name	**Scientific Name**	**Status[2] Fed/CA/other**	**Habitat and Seasonal Distribution in California**	**Likelihood of Occurrence within the Study Area**
California bedstraw	*Galium californicum ssp. primum*	none/none/1B	Chaparral and lower montane coniferous forest. Grows in shade of trees and shrubs at the lower edge of the pine belt, in pine forest-chaparral ecotone. 360m. Blooming May to July.	**Absent;** insufficient habitat and outside elevation.
Los Angeles sunflower	*Helianthus nuttallii ssp. parishii*	none/none/1A	Marshes and swamps (coastal salt and freshwater). Historical from southern California. 5-1675m. Blooming February to October.	**Absent;** insufficient habitat.
mesa horkelia	*Horkelia cuneata ssp. puberula*	none/none/1B	Chaparral, cismontane woodland, and coastal scrub. Sandy or gravelly sites. 70-810m. Blooming February to July.	**Moderate;** although the sage scrub habitat at the study area could provide potentially suitable habitat, and mesa horkelia has been observed within a 5-mile radius of the study area, this species was not observed during the August 2, 2007 field survey; however, as this species can be inconspicuous and was not in bloom, there is still a moderate likelihood of occurrence.
California satintail	*Imperata brevifolia*	none/none/2	Coastal scrub, chaparral, riparian scrub, Mojavean scrub, meadows, and seeps (alkali). Mesic sites, alkali seeps, and riparian areas. 0-500m. Blooming September to May.	**Absent;** insufficient habitat.
silver-haired ivesia	*Ivesia argyrocoma*	none/none/1B	Meadows, pebble plains, and upper montane coniferous forest. In pebble plains and meadows with other rare plants. 1480-2680m. Blooming June to August.	**Absent;** insufficient habitat and outside elevation.

Appendix A SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA				
Common Name	**Scientific Name**	**Status[2] Fed/CA/other**	**Habitat and Seasonal Distribution in California**	**Likelihood of Occurrence within the Study Area**
Robinson's pepper-grass	*Lepidium virginicum var. robinsonii*	none/none/1B	Chaparral and coastal scrub. Dry soils and shrubland. 1-945m. Blooming January to July.	**Low.**
lemon lily	*Lilium parryi*	none/none/1B	Lower montane coniferous forest, meadows and seeps, riparian forest, and upper montane coniferous forest. Wet, mountainous terrain; generally in forested areas; on shady edges of streams, in open boggy Meadows, and seeps. 1300-2790m. Blooming July to August.	**Absent;** insufficient habitat and outside elevation.
Parish's desert-thorn	*Lycium parishii*	none/none/2	Coastal scrub and Sonoran desert scrub. 300-1000m. Blooming March to April.	**Absent;** although the sage scrub habitat at the study area could provide potentially suitable habitat, and Parish's desert-thorn has been observed within a 1-mile radius of the study area, this highly visible (1 to 4 meters tall) species would have been observed during the August 2, 2007 field survey.
Parish's bush mallow	*Malacothamnus parishii*	none/none/1A	Chaparral and coastal sage scrub. In a wash. One site known. 485m. Blooming June to July.	**Low.**
Hall's monardella	*Monardella macrantha ssp. hallii*	none/none/1B	Broadleaved upland forest, chaparral, lower montane coniferous forest, cismontane woodland, and valley and foothill grassland. Dry slopes and ridges in openings within the above communities. 695-2195m. Blooming June to August.	**Absent;** insufficient habitat and outside elevation.
Pringle's monardella	*Monardella pringlei*	none/none/1A	Coastal scrub. Sandy hills. 300-400m. Blooming May to June.	**Absent;** outside elevation.

Appendix A SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA				
Common Name	**Scientific Name**	**Status[2] Fed/CA/other**	**Habitat and Seasonal Distribution in California**	**Likelihood of Occurrence within the Study Area**
Gambel's watercress	*Nasturtium gambelii*	endangered/threatened/1B	Marshes and swamps. Freshwater and brackish marshes at the margins of lakes and along streams; in or just above the water level. 5-1305m. Blooming April to September.	**Absent;** insufficient habitat.
short-joint beavertail	*Opuntia basilaris var. brachyclada*	none/none/1B	Chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon/juniper woodland, and riparian woodland. Sandy soil or coarse, granitic loam. 425-1800m. Blooming April to June.	**Absent;** insufficient habitat.
Cushenbury oxytheca	*Oxytheca parishii var. goodmaniana*	endangered/none/1B	Pinyon and juniper woodland. Ridge north of Holcomb Valley on the Northern edge of the San Bernardino Mountains. On limestone talus and rocky slopes. 1300-2375m. Blooming May to October.	**Absent;** insufficient habitat and outside elevation.
Parish's yampah	*Perideridia parishii ssp. parishii*	none/none/2	Lower montane coniferous forest, meadows, and upper montane coniferous forest. Damp meadows or along streambeds; prefers an open pine canopy. 1390-3000m. Blooming June to August.	**Absent;** insufficient habitat and outside elevation.
Parish's gooseberry	*Ribes divaricatum var. parishii*	none/none/1A	Riparian woodland. Salix swales in riparian habitats. 65-100m. Blooming February to April.	**Absent;** insufficient habitat and outside elevation.
Latimer's woodland-gilia	*Saltugilia latimeri*	none/none/1B	Chaparral and Mojavean desert scrub. Rocky or sandy substrate. 400-1900m. Blooming March to April.	**Absent;** insufficient habitat.

Appendix A SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA				
Common Name	**Scientific Name**	**Status[2] Fed/CA/other**	**Habitat and Seasonal Distribution in California**	**Likelihood of Occurrence within the Study Area**
black sedge	*Schoenus nigricans*	none/none/2	Marshes and swamps. Often in alkaline marshes. 150-2000m. Blooming August to September.	**Absent;** insufficient habitat.
Salt Spring checkerbloom	*Sidalcea neomexicana*	none/none/2	Alkali playas, brackish marshes, chaparral, coastal scrub, lower montane coniferous forest, and Mojavean desert scrub. Alkali springs and marshes. 0-1500m. Blooming March to June.	**Absent;** insufficient habitat.
southern jewel-flower	*Streptanthus campestris*	none/none/1B	Chaparral, lower montane coniferous forest, pinyon-juniper woodland. Open, rocky areas. 600-2790m. Blooming May to July.	**Absent;** insufficient habitat and outside elevation.
San Bernardino aster	*Symphyotrichum defoliatum*	none/none/1B	Meadows and seeps, marshes and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, and grassland. Vernally mesic grassland or near ditches, streams and springs; disturbed areas. 2-2040m. Blooming: July to November.	**Absent;** insufficient habitat.
Sonoran maiden fern	*Thelypteris puberula var. sonorensis*	none/none/2	Meadows and seeps. Along streams, seepage areas. 50-550m. Blooming January to September.	**Absent;** insufficient habitat.
SENSITIVE PLANT COMMUNITIES				
Riversidian Alluvial Fan Sage Scrub	-	CDFG Sensitive	-	**Absent.**
Southern Coast Live Oak Riparian Forest	-	CDFG Sensitive	-	**Absent.**
Southern Cottonwood Willow Riparian Forest	-	CDFG Sensitive	-	**Absent.**
Southern Mixed Riparian Forest	-	CDFG Sensitive	-	**Absent.**

Appendix A
SPECIAL STATUS WILDLIFE & PLANT SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA

Common Name	Scientific Name	Status[2] Fed/CA/other	Habitat and Seasonal Distribution in California	Likelihood of Occurrence within the Study Area
Southern Riparian Forest	-	CDFG Sensitive	-	**Absent.**
Southern Riparian Scrub	-	CDFG Sensitive	-	**Absent.**
Southern Sycamore Alder Riparian Woodland	-	CDFG Sensitive	-	**Absent.**

NOTES:

1. Special Status Wildlife and Plant Species: Wildlife and plants that were included in this table were either observed within the study area by EIP biologists, or contained within the CNDDB, CNPS, and/or literature query for the nine listed USGS quadrangles.

2. Status:

Federal

FE	Federally listed as Endangered
FT	Federally listed as Threatened
FC	Federal Candidate Species
FSC	U.S. Fish and Wildlife Service designated "Species of Concern"

State

SE	State listed as Endangered
ST	State listed as Threatened
CFP	California Department of Fish and Game designated "Fully Protected" or "Protected" – Permit required for "take."
CSC	California Department of Fish and Game designated "Species of Special Concern"
SAL	California Department of Fish and Game designated "Special Animals List"

Other

CNPS:

1A	Presumed extinct in California.
1B	California Native Plant Society (CNPS) Ranking. Defined as plants that are rare, threatened, or endangered in California and elsewhere.
2	California Native Plant Society (CNPS) Ranking. Defined as plants that are rare, threatened, or endangered in California, but more common elsewhere.

Appendix B Wildlife & Plant Species Observed within the Study Area

Appendix B WILDLIFE & PLANT SPECIES OBSERVED WITHIN THE STUDY AREA		
Family	**Scientific Name**	**Common Name**
WILDLIFE		
Birds		
Aegithalidae	*Psaltriparus minimus*	bushtit
Columbidae	*Coluba livia*	rock dove
Columbidae	*Zenaida macroura*	morning dove
Corvidae	*Corvus brachyrhynchos*	American crow
Corvidae	*Corvus corax*	common raven
Emberizidae	*Aimophila ruficeps*	rufus-crowned sparrow
Emberizidae	*Molothrus ater*	brown-headed cowbird
Emberizidae	*Pipilo crissalis*	California towhee
Emberizidae	*Sturnella neglecta*	western medowlark
Musicicapidae	*Chamaea fasciata*	wrentit
Trochilidae	*Calypte costae*	Costa's hummingbird
Troglodytidae	*Thryomanes bewickii*	Bewick's wren
Mammals		
Canidae	*Canis lupus familiaris*	domestic dog
Felidae	*Felis catus*	domestic cat
Leporidae	*Sylvilagus audubonii*	desert cottontail
Sciuridae	*Spermophilus beecheyi*	California ground squirrel
Reptiles		
Iguanidae	*Sceloporus occidentalis*	western fence lizard
Iguanidae	*Uta standburiana*	side-blotched lizard
Anguidae	*Gerrhonotus multicarinatus*	southern alligator lizard
PLANTS		
Dicots		
Anacardiaceae	*Rhus trilobata*	skunkbush
Anacardiaceae	*Schinus molle*	Peruvian pepper tree
Anacardiaceae	*Toxicodendron diversilobum*	western poison oak
Asteraceae	*Achillea millefolium*	yarrow
Asteraceae	*Ambrosia acanthicarpa*	annual bur-sage
Asteraceae	*Artemisia biennis*	biennial wormwood
Asteraceae	*Artemisia californica*	California sagebrush
Asteraceae	*Artemisia dranunculus*	wormwood
Asteraceae	*Centaurea melitensis*	tocalote
Asteraceae	*Centaurea solstitialis*	yellow star-thistle
Asteraceae	*Conyza canadensis*	horseweed
Asteraceae	*Ericameria linearifolia*	interior goldenbush
Asteraceae	*Erigeron breweri*	brewer's fleabane
Asteraceae	*Hazardia squarrosa* var.*grindelioides grandiflora*	saw-toothed goldenbush
Asteraceae	*Helianthus annuus*	annual sunflower
Asteraceae	*Heterotheca grandiflora*	telegraph weed
Asteraceae	*Lessingia glandulifera*	valley vinegar-weed
Asteraceae	*Solidago* sp.	goldenrod
Boraginaceae	*Amsinckia* sp.	fiddleneck
Brassicaceae	*Brassica nigra*	black mustard
Caprifoliaceae	*Sambucus mexicana*	blue elderberry
Chenopodiaceae	*Salsola tragus*	Russian thistle
Euphorbiaceae	*Croton californicus*	California croton

Appendix B WILDLIFE & PLANT SPECIES OBSERVED WITHIN THE STUDY AREA		
Family	**Scientific Name**	**Common Name**
Fabaceae	*Lotus scoparius*	deerweed
Fabaceae	*Spartium junceum*	spanish broom
Fagaceae	*Quercus berberidifolia*	scrub oak
Geraniaceae	*Erodium* sp. (likely *E. botrys*)	filaree
Hydrophyllaceae	*Eriodictyon* sp.	yerba santa
Hydrophyllaceae	*Phacelia* sp.	phacelia
Juglandaceae	*Juglans californica* var. *californica*	Southern California black walnut
Lamiaceae	*Marrubium vulgare*	horehound
Lamiaceae	*Salvia apiana*	white sage
Lamiaceae	*Salvia mellifera*	black sage
Malvaceae	*Malva parviflora*	cheeseweed
Platanaceae	*Platanus racemosa*	western sycamore
Polygonaceae	*Eriogonum baileyi*	Bailey's buckwheat
Polygonaceae	*Eriogonum fasciculatum*	California buckwheat
Rhamnaceae	*Ceanothus cuneatus* var. *cuneatus*	wedgeleaf ceanothus
Rhamnaceae	*Rhamnus ilicifolia*	holly-leaved redberry
Rosaceae	*Adenostoma fasciculatum*	chamise
Rosaceae	*Prunus ilicifolia* ssp. *ilicifolia*	holly-leafed cherry
Solanaceae	*Datura stramonium*	Jimson weed
Monocots		
Liliaceae	*Yucca whipplei*	chaparral yucca
Poaceae	*Avena fatua*	wild oat
Poaceae	*Bromus diandrus*	rip-gut brome
Poaceae	*Bromus hordeaceus*	soft chess
Poaceae	*Bromus madritensis* ssp. *rubens*	foxtail chess
Poaceae	*Leymus condensatus*	giant rye